Institutional Evolution, static and dynamic approaches in assessing performance related to development goals

Michel Fok, Sophia Tazi

A regional project funded by the Ministries of Foreign Affairs of France and of the Netherlands and by CIRAD

Résocot
CottonNet

Regional synthesis Report

Monitoring Device of cotton sectors in Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Ghana and Mali

Institutional Evolution, static and dynamic approaches in assessing performance related to development goals

July 2003

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ACKNOWLEDGEMENTS

We firstly acknowledge the joint financing of the French and Dutch Ministries of the Foreign Affairs and of CIRAD that helped the implementation of the research work whose results are synthesized in this report. We thank M. Claude TORRE and Mrs Ineke DUIJVESTIJN of these Ministries for their continuous attention to the project running and their pro-activeness and flexibility.

The national teams in the six countries of the research network demonstrated their ownership of the project by committing themselves in the various tasks of data collection, information processing and organisation of the launching and feedback workshops in theirs countries. We enjoyed collaborating with the scientists involved, we appreciated the friendly atmosphere of the collective work in spite of the difficulties encountered and the time pressure. The institutions to which they are linked showed a real support and we want to express our sincere thanks.

Thanks to the representatives of CIRAD in the network countries. They contributed greatly in the organisation of the national workshops and in promoting the Project with local players of the cotton sectors.

Benoît Daviron, former coordinator of the social sciences within CIRAD was the promoter of the Project and committed himself actively to have the Project be materialised by identifying research partners and financing support. In the scientific field, he contributed in selecting the theoretical and methodological orientations, in particular in referring performance assessment with regard to development goals. We associate him to the outputs we achieved although shortcomings remain ours.

Colin POULTON and Saa DITTOH spent time in reviewing a draft version of this document and contributed in relevant remarks and suggestions. "Thanks you very much for your valuable contribution ".

Finally, Kees BURGER was mandated by the Dutch Ministry to ensure the Project follow-up and to implement a kind of pre-assessment six month before the Project deadline. He demonstrated a valuable pro-activeness. We are indebted to him for the concern of emphasizing on outputs with operational value, even within a research project.

Michel FOK et Sophia TAZI

The project context

The modes of organisation to be promoted and the type of reforms to operate in cotton sectors historically organised according to a state monopoly model are the object of harsh debates. The most accurate question is on the respective places of the state and the market as modes of coordination. The liberalisation of cotton sectors was launched in anglophone Africa in the mid-1980s and started reaching Francophone countries at the beginning of the 1990s.

The institutional evolution of cotton sectors in SSA took place gradually and entailed the assignment of new roles to the state, private operators and new players (e.g. collective entities…). Different stages of liberalisation and models of coordination (diverse combinations of collective action and regulation by the State) are observable in different countries. What is the relative performance of these different organisation modes is a relevant issue even though the institutional evolution is still underway.

In the framework of the process of liberalisation, we can distinguish :

- The first step which can be qualified as a rash one : the Government withdrew from the cotton sector without establishing specific regulations nor any specific assistance to the cotton stakeholders. It was not successful and it demonstrated the risks of destabilising economies and inducing serious consequences on health, environment, poverty, peace… It is now acknowledged that the market, as a coordination mechanism, cannot solve alone all problems within a cotton sector.

- A second step of relative « cautiousness» : actions are oriented by the challenge of setting up an organisation mode where the market could play completely its role of enhancing competitiveness to induce better performance (better quality, price competitiveness…) but where the State and the collective action (a new coordination mechanism) keep the regulating role to avoid detrimental free riding strategies and to preserve the provision of numerous common goods (environment, health, genetic resources…)

These questions of relative performance were however, up to now, fed by a very poor information basis. In most cases, it was limited to a comparison of the share producers get out the exportation price on FOB (free on board) basis. Résocot is devoted to improve this information basis.

What Resocot or Cotnet is ?

Resocot (Cottonet) is a regional device for the monitoring of cotton sectors in Sub-Saharan Africa which is devoted to the assessment of the relative performance of the various cotton sectors organisation modes. It aims to assist cotton sectors in their institutional evolution, to feed with information the processes of dialogue between the stakeholders at national and regional levels, and to contribute to the identification, by each country, of margins to gain in performance by taking into account experiences of the other countries of the network. The pilot phase which ends in July 2003, covered the campaigns 99-2000 to 2001-2002. This phase enabled to carry out methodology and tools which were applied to the cotton sectors of the six countries of the network (Mali, Benin, Burkina Faso, Ivory Coast, Cameroon and Ghana). Main outcomes pertain to a characterisation of the cotton sector organisation modes through a common grid and original assessment of their performance and progress margins.

An implementation involving North-South partnership

Northern partners

•**Michel Fok A.C. and Sophia Tazi** of **CIRAD** (Centre of International Cooperation in Agronomic Research for Development),

• **Colin Poulton** of The **Imperial College of Wye,** coordinating a similar project involving 4 additional countries (Mozambique, Zambia, Tanzania, Zimbabwe).

• **Peter Gibbon** of The **CDR-Copenhague** (Center for Development Research).

Southern partners

• **Bio Soulé, Georges Alé and Borgui Yerima of LARES** (Laboratoire d'analyse régionale et d'expertise sociale) in Benin ;

• **Gaspard Vognan, Mathieu Ouédraogo and Souleymane Ouédraogo of INERA** (Institut de l'environnement et des recherches agricoles) in Burkina Faso ;

• **Madi Ali and Oumarou Balarabé of** the **CEDC** (Centre d'étude de l'environnement et du développement in Cameroun) ;

• **Massita Coulibaly of the Institut national polytechnique Houphouet Boigny** (**INPHB**)in Côte d'Ivoire;

• **Saa Dittoh and Yakubu Balma of** the **University for Development Studies** at Tamale in Ghana ;

• **Manda Sadio Keita and Boubacar Traoré of the IER** (Institut d'économie rurale) in Mali.

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ACRONYMS AND ABBRÉVIATIONS
(FOUND IN NATIONAL REPORTS)

BURKINA FASO

ARC : Appui à la Recherche Cotonnière
ATC : Agent Technique Coton
BACB (ex-CNCA) : Banque Agricole et Commerciale du Burkina
BCEAO : Banque Centrale des Etats de l'Afrique de l'Ouest.
BIB : Banque Internationale du Burkina
BICIA-B : Banque Internationale pour le Commerce, l'Industrielle et l'Agriculture du Burkina
CC : Correspondant coton
CCIC : Comité Consultatif International sur le Coton
CDI : Négociant international de coton fibre
CF : Coton Fibre
CFD : Caisse Française de Développement devenue AFD (Agence Fr. de développement)
CFDT : Compagnie Française pour le Développement du Textile devenue DAGRIS
CG : Coton Graine:
CNCA-B : Caisse Nationale de Crédit Agricole du Burkina
COPACO : Compagnie Cotonnière (Paris, France)
CSPPA : Caisse de Stabilisation des prix des produits agricoles
DDPC : Direction pour le Développement de la Production Cotonnière
DFCB : Direction des Finances, Comptabilité et Budget
DICA : Direction des Intrants et du Crédit Agricole
DOS : Document d'Orientation Stratégique
FASO FANI : Unité Textile du Burkina
FILSAH : Unité de Filature du Burkina
FOB : Free on Board
GPC : Groupement de Producteur de Coton
GV : Groupement Villageois
INERA : Institut de l'Environnement et de Recherches Agricoles
NEPAD : Nouveau Partenariat pour le Développement de l'Afrique
PA/OPC : Projet d'Appui aux Organisations de Producteurs de Coton
PAS : Programme d'Ajustement Structurel
PASA : Programme d'Ajustement du Secteur Agricole
PSO : Plan Stratégique Opérationnel
SAPHYTO : Société Africaine Phytosanitaire
SAPIN-B : Société Agro-pastorales et Industrielle du Burkina
SCAB : Société Chimique et Agricole du Burkina
SOFITEX : Société des Fibres et Textiles du Burkina
TEC. Tarif Extérieur Commun
TPDC : Taxe Préférentielle Différentielle Communautaire
TTC : Toute Taxe Comprise
TVA : Taxe sur la valeur ajoutée
UE : Union Européenne
UEMOA : Union Economique et Monétaire Ouest Africaine
UNPCB : Union Nationale des Producteurs de Coton du Burkina

BENIN

AFD	Agence Française de Développement
AFCOT	Association Française Cotonnière
AIC	Association de l'Interprofession du Coton
APEB	Association Professionnelle des Egreneurs du Bénin
APV	Agent Polyvalent de Vulgarisation
ART	Atelier de Revue de Technologies
ASCOB	Association des Sociétés Cotonnières du Bénin
BC	Blocs de Cultures
BCEAO	Banque Centrale des Etats d'Afrique de l'Ouest
BDPA	Bureau pour le Développement de la Production Agricole
BM	Banque Mondiale
BOA	Bank of Africa
BUCO	Bureau de Coordination de la Coopération Suisse
CAF	Coût, assurance et fret
CAGIA	Coopérative d'Approvisionnement et de Gestion des intrants Agricoles du Bénin
CAR	Coopérative d'Aménagement Rural
CARDER	Centre d'Action Régionale pour le Développement Rural
CAF	Coût Assurance Frêt
CATS	Coopérative Agricole de Type Socialiste
CAETS	Coopérative Agricole Expérimentale de Type Socialiste
CCB	Compagnie Cotonnière du Bénin
CE	Concentré Emulsionable
CFD	Caisse Française de Développement
CFDT	Compagnie Française de Développement des Textiles
CIRAD	Centre de Coopération Internationale en Recherche Agronomique pour le Développement
CG	Coton Graine
CF	Coton Fibre
CLCAM	Caisse Locale de Crédit Agricole Mutuel
CNS	Comité Technique Départemental
COTEB	Complexe Textile Commerce Général et de Commercialisation des Produits Agricoles
CRA-CF	Centre de Recherche Agricole, Coton Fibre.
CS	Conseil de Surveillance.
CSPR	Centrale de Sécurisation des Paiements et du Recouvrement
DAER	Direction de l'Aménagement et Equipements Ruraux
DAGRI	Direction de l'Agriculture.
DIFOV	Direction de la Formation Opérationnelle et de la Vulgarisation agricole.
DRE	Direction Régionale de l'Exploitation.
DPQC	Direction de la Promotion de la Qualité, du Conditionnement et du Contrôle des produits.
DROA	Direction Route et Ouvrages d'Arts.
FCFA	Franc Communauté Financière d'Afrique
FENACREP	Fédération Nationale des Caisses Régionales d'Epargne et de Crédit
FILTEX	Files et Textiles.
FOB	Free on Board
FSS	Fonds de Stabilisation et de Soutien des Prix des Produits Agricoles
FUPRO	Fédération des Unions des Producteurs du Bénin
GEA	Groupement des Exploitants Agricoles du Bénin
GC	Groupe de Contact

GIE	Groupement d'Intérêts Economiques
GPDIA	Groupement Professionnel des Distributeurs d'Intrants Agricoles
GV	Groupement Villageois
IAB	Intrants Agricoles Bénin
ICA	Industries Cotonnières Associées
ICB	Industrie Cotonnière du Bénin
IDI	Importateurs et Distributeurs d'Intrants
INRAB	Institut National de la Recherche Agronomique du Bénin
LARES	Laboratoire d'Analyse Régionale et d'Expertise Sociale
MA	Marché Auto-géré
MAEP	Ministère de l'Agriculture de l'Elevage et de la Pêche
MCI	Marlan's Cotton Industries
MMS	Marlan's Multi Service
MTPT	Ministère des Travaux Publics et des Transports
ONG	Organisation Non Gouvernementale
ONS	Office National de Stabilisation des prix des produits agricoles
OP	Organisation Paysanne
PNVA	Programme National de Vulgarisation Agricole
TPCG	Transporteurs Privés du Coton Graine
SAMAC	Société Africaine pour le Management, l'Affrètement et le Commerce
SATEC	Société d'Aide technique et de Coopération
SCP	Sociétés Cotonnières Privées
SCQC	Service Contrôle de Qualité et Classement
SDI	Société de Distribution Intercontinentale
SEICB	Société d'Egrenage Industriel du Coton
SHB	Société des Huileries du Bénin.
SITEX	Société Industrielle des Textiles.
SOCOBE	Société Cotonnière du Bénin
SOGICOM	Société Générale pour l'Industrie et le Commerce
SONAPRA	Société Nationale pour la Promotion Agricole
SOSEA	Société de Transit et d'Arbitrage
SOTICO	Société de Transactions Internationales pour l'Industrie et le Commerce
UBV	Ultra Bas volume
UDP	Union Départementale des Producteurs
UEMOA	Union Economique et Monétaire Ouest-Africaine
UP	Unité de Production
URCF	Unité de Recherche sur le Coton et la Fibre
USPP	Union Sous Préfectorales des Producteurs

CAMEROUN

AVP : Association Villageoise des Producteurs
BAD : Banque Africaine de Développement
BM : Banque Mondiale
CAMRAIL: Cameroon Railway
CCS : Cercle de Caution Solidaire
CFDT : Compagnie Française de Développement des fibres Textiles
CICAM : Cotonnière Industrielle du Camroun
CIRAD : Centre de Coopération Internationale en Recherche Agronomique pour le Développement
CNHPA : Commission Nationale d'Homologation des Pesticides à usage Agricole DAGRIS :
DIE : Direction des Industries et Equipements/SODECOTON
DPA : Direction de la production Agricole/SODECOTON
FIDA : Fond International pour le Développement Agricole
GETMA : Groupement des Entreprises de Transport Maritime et Aérienne
GIC : Groupement d'Initiative Commune
GP : Groupement de Producteurs
GPA : Groupement des Producteurs Autogéré
IRAD : Institut de Recherche Agricole pour le Développement
ONCPB : Office Nationale de Commercialisation des Produits de Bases
OPCC-GIE : Organisation des producteurs de Coton du Cameroun
PNVRA : Programme National de Vulgarisation et de Recherche Agricole
PPTE : Pays Pauvre Très Endetté
PRASAC : Pôle Régional de Recherche appliquée au développement des Savanes d'Afrique Centrale
SNI : Société Nationale des Investissements
SNTRC : Syndicat National des Transporteurs Routiers du Cameroun
SODECOTON : Société de Développement du Coton
STRCO : Syndicat des Transporteurs Routiers du Cameroun Oriental
UPAC : Union Phytosanitaire d'Afrique Centrale

GHANA

ACDEP	Association of Church Development Projects
ADB	Agricultural Development Bank
AFD	Agence Francaise Developpment
AGSSIP	Agricultural Sector Services Investment Programme
CDB	Cotton Development Board
CPA	Cotton Production Assistant
CPO	Cotton Production Officer
CPS	Cotton Production Supervisor
DA	District Assembly
EPA	Environmental Protection Agency
FNSU	Food and Nutrition Security Unit (of UDS)
GCCL	Ghana Cotton Company Limited
GCDB	Ghana Cotton Development Board
IPM	Integrated Pest Management
LEISA	Low External Input and Sustainable Agriculture
MOFA	Ministry of Food and Agriculture
NARP	National Agricultural Research Project
NGO	Non Governmental Organisation
NPL	Nulux Plantation Limited
NR	Northern Region
PDL	Plantation Development Limited
RCC	Regional Coordinating Council
SARI	Savanna Agricultural Research Institute
UDS	University for Development Studies
UER	Upper East Region
UWR	Upper West Region

MALI

AFCOT :	Association Française de l'industrie textile
AV	Association Villageoise
BNDA	Banque Nationale de Développement Agricole
C.S.P.	Comité Sahélien des Pesticides
CFDT	Compagnie Française pour le Développement des Textiles
CILSS	Comité Inter – Etats de Lutte Contre la Sécheresse au Sahel
CIRAD :	Centre International de Recherche en Agronomie pour le Développement
CMDT :	Compagnie Malienne pour le Développement des Textiles
COMATEX :	Compagnie Malienne des Textiles
COPACO :	Compagnie Parisienne de Coton
CPS	Contribution pour les Prestations
DPCG	Direction de la Production Contrôle et Gestion
FMI	Fond Monétaire International
HUICOMA :	Huileries Cotonnières du Mali
I.E.R.	Institut d'Economie Rurale
IFDC	International Fertilizer Development Cocrporation
IPM	International Pesticide Management
Kafo Jiginew :	Caisse Associative d'Epargne et de Crédit
L.A.E.	Lutte Anti Erosive
L.E.C.	Lutte Etagée Ciblée
MARI	Marge après remboursement des intrants
MDRE :	Ministère du Développement Rural et de L'Eau
MEF	Ministère de l'Economie et des Finances
MICT	Ministère de l'Industrie, du Commerce et des Transports
MRSC	Mission de Restructuration du Secteur Coton
O.P.	Organisation Paysanne
OHVN	Office de la Haute Valée du Niger
PRMC	Programme de Restructuration du Marché Céréalier
SMPC	Société Malienne de Produits Chimiques
SOFRECO :	Bureau d'Etudes
SOSEA :	
SYCOV :	Syndicat des Cotonniers et Vivriers
SYPAMO :	Syndicat des Producteurs Agricoles du Moyen Ouest
TAF	Taxe sur les Affaires Financières
TEC	Tarif Extérieur Commun
TKM	Tonne Kilométrique
UEMOA :	Union Economique Monétaire Ouest Africaine
UPA	Unité de Production Agricole
WAF	West African Fibre
ZAER	Zone d'Animation et d'Expansion Rurale

Côte d'Ivoire

AMB :	African Merchant Bank
ANADER :	Agence Nationale pour le Développement Rural
APPROCOT-CI :	Association Professionnelle des Sociétés Cotonnières de Côte d'Ivoire
APV :	Autorisation Provisoire de Vente
BNETD :	Bureau National d'Etudes Techniques et de Développement
CSSPPA (Caistab) :	Caisse de Stabilisation et de Soutien des Prix des Produits Agricoles
CIDT :	Compagnie Ivoirienne pour le Développement du Textile
CNRA :	Centre National de Recherche Agronomique
COTIVO :	Société Cotonnière de Côte d'Ivoire
DD :	Droit de Douane
DPVQ :	Direction de la Protection des Végétaux et de la Qualité
FISDES :	Fonds Ivoiro-Suisse pour le Développement Economique et Social
FTG :	Filatures et Tissages Gonfreville
INTERCOTON :	Inter- profession du secteur coton
LCCI :	La Compagnie Cotonnière de Côte d'Ivoire
MINAGRA :	Ministère de l'Agriculture et des Ressources Animales
OPA :	Organisation Professionnelle Agricole
RS :	Redevance Statistique
PCS :	Prélèvement Communautaire de Solidarité
SOFICOCI :	Société de Financement des Intrants Coton en Côte d'Ivoire
STABEX :	Fonds de Stabilisation des recettes d'exportation
TCI :	Taxe Conjoncturelle à l'Importation
TDP :	Taxe Dégressive de Protection
TEC :	Tarif Extérieur Commun
TRITURAF :	Société pour la Trituration des graines oléagineuses
UCAP-CI :	Union des Coopératives Agricoles et des Producteurs de Côte d'Ivoire
UCEA-CI :	Union des Coopératives Exploitants Agricoles de Côte d'Ivoire
UCOOPAG-CI :	Union des Coopératives Agricoles de ôte d'Ivoire
UEMOA :	Union Economique et Monétaire Ouest Africaine
UNIPHYTO :	Union des Professionnels Phytosanitaires
UIRECOOPAG :	Union Régionale des Coopératives Agricoles
URECODA-CI :	Union Régionale des Coopératives de Distribution de Produits Agricoles de CI
URECOS-CI :	Union Régionale des Entreprises Coopératives de la zone des Savanes de Côte d'Ivoire
UTEXI :	Union Industrielle Textile de Côte d'Ivoire

Foreword

A CD-ROM has been produced containing the output of the Resocot Project (CottonNet) in the form of texts, tables, graphs and reports of data analysis from the constructed databases, excluding the national reports and the present regional synthesis. Reference is frequently made to this CD-ROM in the present report because the two documents are complementary.

The six cotton sectors of the Resocot Project have various cotton production levels, in particular with Ghana which has a very small production. In order to enable a quick vision of differences and similarities between these countries, we reproduced some statistic data at the end of the appendices which are extracted from the regional data base that has been set up and whose total outcome is contained in the CD-ROM.

1 INTRODUCTION

1. The Resocot Projet is a research project which brought together teams of researchers from the North and Africa, not all of which were familiar with the theoretical approach used at the outset. This project aims at developing a methodology and materials to help assess the performance of the cotton commodity sectors of different countries and to assist the players concerned to steer these sectors towards improving their performance. At a time when several African sectors have already gone over to a inter-professional type of management, the output from the project could prove useful for facilitating exchanges between stakeholders, so as to enable them to develop a common vision of the problems before deciding on the actions required to resolve them. Considering its aims, the project should be judged by the methods and tools developed rather than by the degree of accuracy of each sector analysis carried out with these methods and materials. The degree of accuracy is in effect limited by the fact that only a single actor (research) was involved in the undertaking, as opposed to all the stakeholders in the sector. Because of this, the Resocot Project should not be considered as being just another sector appraisal.

2. The Theory of New Institutional Economics (NIE) was chosen as the basis for the Resocot Project. This states that the institutions and the way they operate influence the performance of economic activities, and that their foundation is the stakeholders and the actions they undertake to coordinate with each other (understood in a broad sense)1. In practice, the theory was applied by first characterising the organisation mode operating in the sectors, identifying indicators of performance and defining the effect of the organisation mode on performance. One original feature of the project was that it made specific reference to the performance of the sector in satisfying the development goals, retaining three goals that have been agreed upon by international aid agencies: poverty reduction, environmental sustainability and competitiveness on the international market. So that the application of the methods and tools should lead to executive indications on how to manage the reorganisation of the cotton sectors, the Resocot Project is being run simultaneously in 6 countries (Benin, Burkina Faso, Cameroon, Côte d'Ivoire, Ghana and Mali) where the cotton sector has undergone different institutional changes, in terms of degree of liberalisation, privatisation, or the retention of the original monopoly system, but also in terms of the degree to which the farmers are involved in the management of the sector.

3. The characterisation of the organisation mode of the sector began by the characterisation of each of the technical stages (from the acquisition of inputs to the sale of finished cotton products). The theoretical basis selected led to have this characterisation being based on an analysis of the stakeholders (their number, their nature, dominance, etc), on horizontal coordination (in the sense of coordination of the management of common or collectively owned resources, but also extended to coordination by intra-professional associations and inter-professional organisations throughout the technical stages), the vertical coordination (at the level of transactions, but extended to the level of service supply), price formation and terms and conditions of transactions.

4. The initiative of referring performance to the fulfilment of the development goals meant that the goals had first to be divided into partial objectives with more practical

[1] An institution is a set of behavioural rules conceived by people for guiding interactions between them, partly to help each individual to anticipate what the others will do. It may, although this is not always the case, take the shape of an organisation in order to enforce these rules.

and operational headings, achievable over a shorter time span. This was an original approach; to date, we have found no other examples of a similar approach being taken. This initiative then led us to retain the hypothesis, in accordance with NIE theory, that observed performance reveals the degree of coordination failure. Put another way, performance would be perfect if no coordination failures prevail, but since this absence of coordination failure cannot be realistically retained in developing countries (such as those involved in the Resocot Project), the observed non-optimal level of performance reveals the level of coordination failure. In accordance with the hypothesis retained, it is by pinpointing potential coordination failures that pertinent performance indicators may be identified and thence the list of information to be collected in order to assess these indicators. The output of this work of identification is another original product of this project.

5. The concept of coordination failures is familiar to economists and likely less for other people. Generally speaking, failures are mentioned for coordination by the State, they are more commonly pointed out, but market failures are also acknowledged.2. The first type of failures leads to inefficient outcomes as a consequence of missing financial resources, lack of competence or motivation from the State staff. The second type pertains in particular to the limitations of the market to manage non-private goods so that the mere search for maximising individual profit could induce harmful collective impacts.

6. The approach taken and the methodology developed, as well as the resulting methodology products are explained in more detail on the CD-ROM (Chapter 4 of the general report). To facilitate data capturing and data processing, a set of databases was created. This is described in chapter 5.1 of the general report of the CD-ROM. Results related to the project methodology derived from the exploitation of these databases, based on data collected by national teams, can be found in chapters 5.2 and 5.3.

7. The choice of referring performance to the development goals leads onto a great many variables or criteria for defining the 3 general goals of development. The vast quantity of information makes it difficult to reach general appreciations for each country that could lead to workable propositions. Another product of the project is the proposed qualitative and relative evaluation approach and the development of the tools for making graphical representations from them. In chapter 5.4 of the general report of the CD-ROM a detailed description of this approach is given along with some examples to illustrate its application.

8. The analysis of how the organisation mode affects the observed performance of the cotton sectors is a tough challenge; it concerns evolving economic and social systems for which the necessary hindsight is lacking. An approach is proposed for the analysis of how well the development goals are attained, using a large number of qualitative considerations which combine performance indicators with the organisation characteristics of the sectors. With the same aim of obtaining a synthetic view, 9 key factors of performance are proposed, corresponding to combinations of qualitative considerations, which we believe could also be of use for evaluating other commodity channels. The position of one commodity channel in relation to these key factors gives an indication of the performance that can be expected if the organisation mode remains unchanged, or, more positively, this position provides an idea of the improvement in performance that would be obtained if the organisation mode were to be adjusted effectively. Details of the approach using qualitative considerations, the list of the key

[2] For more detail, see: Fok, A. C. M. and Tazi, S., 2003. Filières cotonnières africaines : restructuration, défaillances de coordination, règles collectives. In: (Ed.) 'Séminaire S.H.S. du Cirad'. Proceedings of an International Symposium, Montpellier, 8-9 Septembre 2003. pp.23

factors of performance, how these relate to qualitative considerations, and examples of how these are applied are given in chapter 5.5 of the general report of the CD-ROM.

9. All the methods and tools were applied to each of the countries involved in the Resocot Project. A list of products obtained per country may be accessed in chapter 6 of the general report of the CD-ROM. Regional synthesis were made for all the products, and are presented in chapter 7 of the general report of the CD-ROM.

10. The present regional synthesis report proceeds from the exploitation of the great mass of information and results obtained. It makes no pretence of being an exhaustive and definitive exploitation of the results. The summary aims at extracting the salient facts and information, in order to put forward working propositions in the fields of the organisation modes of the sectors, the performance obtained and the effect of the organisation mode on performance. Wherever necessary, the methodology will be mentioned briefly, before referring the reader to more detailed accounts in the CD-ROM. Although the project has a precise theoretical foundation (that differs from the one retained, explicitly or implicitly, in many expert studies), this document is aimed at a wide audience and we will therefore keep the discussion of economic theories to a minimum.

11. This report first examines the organisation of the cotton sectors according to the chosen descriptive framework. Attention is then turned to the performance obtained with respect to the development goals, followed by the effects of the organisation mode on performance. The final chapter deals with the topic of coordination failures revealed by the Resocot Project.

12. For convenience, the considerable differences that distinguish Ghana from the other countries are highlighted by referring the latter countries as the 'francophone countries'. However, the reader should not take this to indicate that the Resocot Project attempts to emphasise the characteristics and achievements of the francophone countries. In the chapter on the analysis of the effects of the organisation mode on performance, we propose to use the rather laborious expressions 'countries with organisation modes non-oriented towards liberalisation' and 'countries with liberalisation-oriented organisation modes', in order to avoid adding to the idea that there is a relationship between one group of countries and a specific organisation mode.

2 THE REAL ORGANISATION OF THE SECTORS BEYOND THE SPLIT BETWEEN STATE AND MARKET

13. The national teams associated with the Resocot Project have analysed the descriptions and the study of the organisation mode. These analyses can be found in the reports concerning the organisation and functioning of the sectors and in the summary tables (chapters 1.1 and 1.2 of the list of national documents and products on the CD-ROM). In chapter 7.2 of the general report of the CD-ROM the six countries are presented in a single table. A great deal of information is presented in these products (with a varying degree of detail depending on the country), providing the basis for the present regional synthesis.

14. For this regional synthesis report, we have chosen to present the organisation mode under five headings (stakeholders, horizontal coordination, vertical coordination, price formation and terms and conditions of transactions) according to the methodology chosen for the description and analysis of the national cotton sectors, but dealing with the sector as a whole rather than by technical stage.

2.1. Stakeholder landscapes and diversified systems of competition, not necessarily imposed by the institutional framework.

2.1.1. Diversified institutional framework beyond the contrast between liberalisation and monopoly

15. **Few institutional frameworks favour total liberalisation of the sector,** and it can even be stated that no examples of this option are to be found now**.** Ghana, which has kept with this option since the mid 1980s, has shown doubts about it since the 2000/2001 season during which the government, by deciding to pass a policy of 'zoning', gave the monopoly of different zones to different companies. From this point of view, it may appear out of place to refer to Ghana as illustrating a organisation mode directed by liberalisation as we do in this report. This misuse of language is of little consequence however, because the change in policy is recent and has not had time to fundamentally change the processes marked by almost fifteen years of total liberalisation.

16. **A trend towards the liberalisation of certain stages is found** however, the typical case being for input supply. The liberalisation of this part of the commodity chain is being sought in Burkina Faso, while it has already taken place in most of the countries. This type of liberalisation is regulated since the rules concerning the invitation to tender for input supply are stipulated by the State, cotton inter-professional organisations or simply the cotton companies, and because certain countries have, or are about to, put in place strict rules for product certification that the suppliers will be obliged to adhere to.

17. **The trend towards targeted privatisation has become more usual.** This concerns ginning, and is already operational in Benin and Côte d'Ivoire. With the opening of the capital of the sole cotton company of Burkina Faso to small farmers, it can be said that the privatisation of ginning is under way. In Mali, a decision has been made recently to move towards privatisation along the lines traced by Côte d'Ivoire with the attribution of monopoly zones. This type of privatisation has of course been the rule in Ghana since liberalisation in 1985. It should be noted however, that privatisation does not prevent the phenomenon of domination by one actor in particular. This happened in Benin after a relatively short time of privatisation, as had previously occurred in Ghana. Privatisation occurs also significantly in the transport of various products (inputs and cotton products) though to different and variable extents depending on the product concerned. Also, in the case of the transport of seedcotton, we find operation by entirely private (Ghana), by entirely cotton company (Cameroon) and by sharing between cotton companies and private operators. The trend towards a greater role for the private sector is evident in transport, but the influence of international aid agencies is not unrelated to this.

18. **Regulation favouring monopoly systems still remain however, although the ways in which these operate have evolved.** For ginning, while the regulations issued in the 1970s conferring a monopoly rights over the entire country (Cameroon, Burkina Faso, and Mali for a short while still) are still being followed, we find:

    - the adoption of local monopolies (Côte d'Ivoire and Ghana)
    - and an administration system for the annual distribution of production quotas for ginning that is not explicitly linked to geographical criteria (Benin) and which are contested by certain ginners who feel that they are disadvantaged compared to others.

19. In the field of input supply to farmers, the principle of having a single distributor is applied in most of the countries, although not necessarily based on explicit regulations. In three countries (Mali, Cameroon and Côte d'Ivoire), the farmers deal with two input suppliers, the cotton company and a farmers' institution (cooperative, federation or trade union) but generally for different inputs. This is a process that has been initiated to prepare the way for the withdrawal of the cotton companies from input supply. It is

supported in various ways by outside institutions, particularly on the financial side of farmer associations for buying and distributing inputs (support obtained in Côte d'Ivoire, but not yet in Mali). In the case of supply carried out by farmers' institutions, it can not be said that more satisfaction is always given to the farmers (discontent voiced in Mali), nor that financial viability is ensured (poor rate of repayment in Côte d'Ivoire), but the process is still in its early days.

20. **Positions on the regulation of the supply of raw materials for industries down stream of cotton production have become less contrasted**, following the phase of support to local processing industries. Concerning lint supply to the textile industry, the preferential controls profiting the textile industry over the obligation to supply it with raw material no longer exist, neither do those over the prices practiced in this supply. In all the countries, this is negotiated privately between buyers and sellers with occasional remonstrations from the textile industries (Côte d'Ivoire and Cameroon). The same applies for supplies to oil mills, excepting Benin, Burkina Faso and Mali. In Benin, the State had to issue a decree stating that the demand of local oil mills should be met before they would issue an export licence, and it administrates the export price. In Burkina Faso, exports have been limited to 10% of the available volume. In Mali, the one and only oil extractor (Huicoma) lost its exclusive right to buy cottonseed two seasons ago. This change opens up the possibility for traders to buy cottonseed, but at present this only concerns a small volume. In Côte d'Ivoire, the inter-professional organisation recommends that seeds be processed locally, whereas in Cameroon supply is automatic through the integration of ginning and oil extraction. In Ghana, there is no oil mill to process cottonseeds.

21. **All the problems are not solved through regulations** when these are contested by some of the stakeholders: this is the case for the ginners in Benin, who are protesting against the limit imposed on exportation, which they believe is more profitable**.**

2.1.2. The institutional framework does not necessarily lead to the system of competition desired

22. Not all the technical stages are subject to competition. In the case of local input supply, a **suppliers' oligopoly** often exists**,** reducing the possibility of competition.

23. **The system of competition does not necessarily operate in the most crucial stages.** Even in the systems that have evolved towards liberalisation, there is no competition for the distribution of inputs to farmers (Ghana), who deal with a single distributor.

24. It is also interesting that **dominance by one actor may occur even in a liberalised system.** In Ghana, one company is in a very dominant position for supplying inputs to cotton companies, to the point of becoming their creditor, suggestive of a process of integration.

2.1.3. The lack of competition depends on the product or service and the technical stage

25. **The situation of oligopoly (or duopoly) is particularly noticeable for fertiliser supply** in the francophone countries, where two companies (Senchim and Hydrochem or an associated enterprise) dominate.

26. **The situation is less clear-cut for pesticide supply,** where there are a large, and increasing, number of suppliers. However, **vigilance is called for,** since the same international supplier can be found behind several national companies. In addition, not all the companies are in a position to be able to comply with the new measures concerning the certification and authorisation of products.

27. **The absence of competition may prevail due to the lack of interest from private operators.** This is the case for cotton seeds and lint transport to local factories. The distances and volumes concerned are too small to interest the private operators.

28. **The notion of competition is sometimes less pertinent than that of complementarity.** This is the case of seed production which draws together cotton companies, research and seed producers in an accepted division of labour. It is also the case for research, for which the public nature of the output makes the case for competition hard to sustain. Complementarity with national research bodies often predominates in this area where the cotton companies carry out the adaptive research**.** This complementarity is not always evident; in several countries (Côte d'Ivoire, Benin and Burkina Faso) the cotton companies are not involved in the conduct of applied research.

2.1.4. The lack of competition does not always depend on the organisation of the cotton sector

29. The prevailing lack of competition does not always depend on the organisation of the cotton sector itself, **especially concerning operations downstream of cotton lint**.

30. For both local processing of cotton seed or lint, there is usually a maximum of two buyers. When suppliers have a more or less official obligation to supply a local processing industry, with rather disadvantageous conditions, the sellers complain or supply the lowest quality.

31. In the field of storage activities at port or transit services, the countries, especially the landlocked countries, suffer from the situation of *de facto* oligopoly against which they have little control.

2.1.5. Effective competition in certain fields

32. **There is competition in some areas however, even within the organisation modes dominated by monopoly systems** (even if these systems are strongly promoted by the international aid agencies). These areas concern transportation (inputs, seedcotton and fibre) and the sale of lint for export**.**

33. For transportation, a large number of private operators may be involved, either exclusively, as is the case with the transport of lint (Mali and Burkina Faso), or in complement to other cotton companies which have their own trucks in the case of seedcotton transportation. In the latter case, when the cotton companies possess many trucks (Mali) they take advantage of their strong bargaining position to obtain the best conditions from the private operators (getting them to collect the seedcotton on the least well maintained tracks for example). In the opposite situation where the cotton companies are short of trucks, the private operators are better placed to impose their own conditions (in Côte d'Ivoire the transporters refuse to use certain tracks).

34. In the area of lint export, competition has been unquestionably improved as a consequence of a diversification of the forms of sale, going from an exclusive recourse to sales by commission agents to an increased recourse to traders, even though this change has happened in phases for the different countries (Côte d'Ivoire a long time ago, Mali very recently).

2.1.6. Some diversification in the type of actors involved

35. For all the countries concerned except Ghana, **the intervention of national operators is rather limited** (not taking into account the farmers themselves). Their action is more visible in the distribution of inputs, but these are national agents that can have very close ties with international companies. Their intervention in transportation is also important, but this is not specific to the cotton sector.

36. **The international operators are playing an increasingly greater role, which has gone beyond the traditional limits of input supply.** This trend is maintained by the pronounced intervention of cotton lint traders, some of which have even entered into a process of upstream integration over the past few years (Côte d'Ivoire and Benin). The intervention of the European banks in financing the marketing campaign in several countries should also be noted (Mali, Cameroon, Burkina Faso), but this is not a recent trend.

37. **The role played by regional actors is particularly important in the field of fertiliser supply.** It can also concern financing the input supply or the marketing campaign in certain countries (Benin and Ghana). Occasionally, the actors of other countries may intervene to buy cotton products, but this mainly concerns Cameroon, which sells to Chad and Nigeria from time to time**.**

38. Concerning the farmers, or rather their organisations, their involvement in the commercialisation of seedcotton and in the management of credit for inputs is longstanding and essentially corresponds to services externalized from the cotton companies. But **farmers are steadily taking up more responsibility for the technical stages**. They can be in charge of buying and distributing inputs, not in competition with other stakeholders but more or less in the place of the actors who did it before. The case of Côte d'Ivoire, where a ginning mill acquired by URESCO-CI (a federation of cooperatives) is in operation, is **a first attempt at taking over ginning** that the recent events in the country and insufficient hindsight prevent from being correctly appreciated.

2.2. Variable dimensions of horizontal coordination

39. While horizontal coordination is often understood in the narrow sense of coordination for managing of common goods, the Resocot Project chose to include actions of intra-professional and inter-professional coordination in this definition, which corresponds better to the common understanding of the term. In the present document, we first analyse coordination relating to common goods, and then address the various types of professional coordination.

2.2.1. Difficulties associated with scaling up in the coordinated management of common or collective resources

40. Actions of coordination are **mainly noticeable in the francophone countries** and have concerned :

- the management of land resources,
- the management of pests and the effects of pest control on human health,
- and the development and diffusion of technical knowledge by research and extension (methods of preventing soil erosion, methods of sustainable management of cultivated areas or new pest control programmes).

41. **Concerning the management of land resources,** all the francophone countries (to a lesser extent in Benin however) have undertaken for a long time specific actions with financial backing from international aid agencies. Implementation has always involved the cotton companies and the farmers'organisations and has resulted in technical realisations of commendable quality, but which only affect a small number of villages. **There seems to be a blockage to scaling up these actions, or this idea may have been abandoned**.

42. More recently, moves have been made towards the adoption of new, more rational, pest control programmes that adjust treatment to the damage threshold of the pests (Staggered Targeted Control"Lutte étagée ciblée" or LEC). They only concern Mali

and to a lesser extent Benin, while Cameroon, a forerunner in this field, has abandoned them, and an attempted experiment in Burkina Faso has been cut short. In both countries **where the LEC is being promoted, the operation still concerns a small number of villages and area of cotton production**, due in particular to the requirement that the farmers have an appropriate training.

43. **A tendency to diversify the conditions of programming, financing and supervision for research is becoming stronger.** It is useful to point out that changes to end up with the monopoly of the national body for agronomy research are underway with the possibility of contributions from Universities or Faculties being considered. The coordination of research programmes is the subject of mechanism which is becoming more clearly defined (Mali, Benin, Côte d'Ivoire and Burkina Faso) in which the farmers have a larger role (Mali, Côte d'Ivoire), at least in theory. The **modes of financing remain very different from country to country**, even between francophone countries. Most often, the funding mechanism is not based on defined criteria, or on a multi-annual basis. The State and the cotton commodity sector are supposed to provide the funds but based on imprecise criteria, and with a big contribution from the cotton companies (Mali in particular, but also Cameroon and Benin). There is little basis on which to set the amount of funding required, so **the decisions pertaining to financing are often discretionary,** putting the researchers in the position of applicants and the cotton sectors/companies as sponsors. Côte d'Ivoire stands out from the rest in that it indicates a reference figure (400 million FCFA /year), but **it is the option retained by Burkina Faso that appears most promising.** This links the amount to be funded to the production of cotton lint (1.5 FCFA/kg of lint sold), which corresponds to an approach put in place in economically developed cotton producing countries. The option chosen by Ghana deserves a mention; it aims at making the cotton companies pay for using of the products of research. This approach, which is a bit surprising in its statement about products that are public goods, seems to have discouraged the cotton companies, with the result that research on cotton has virtually ceased to exist in this country.

44. **In the field of responsibility for extension work, the changes are underway, with responsibility shared between the actors.** The cotton companies are still the main suppliers of extension service in all countries studied. In Mali things are different however, with the cotton company sharing this role with village associations who have their own teams of technicians (made up of young literate and trained farmers). In Burkina Faso and Cameroon, there are also partnerships between the cotton companies and agents from the villages, but these operate in various ways. Where private cotton companies operate, the quality of service is considered inadequate (Ghana) and even disparaged (Côte d'Ivoire). Elsewhere, they may not involve themselves in extension work at all (Benin). Protestation against the poor quality of service in the field of extension work is an important part of the reason why the inter-professional organisations have taken on the responsibility for extension work (Côte d'Ivoire). This change is already operational in Benin, where the Inter-professional organisation called Association Interprofessionnelle du Coton(A.I.C.) has its own technical staff for this. There is also a trend towards reducing the number of staff involved in technical training. This is particularly drastic in Mali. Nonetheless, the financing of extension is still connected to the cotton sector, although no specific criteria are defined for it.

2.2.2. Variable role of more or less definite or updated regulations

45. **Little regulation exists for the management of collective/common resources.** The most manifest regulation concerns the management of pest pressure and the preservation of public health and deals with the certification of chemicals towards using less toxic products, in accordance with directions from regional and international bodies (Mali and Burkina Faso). In this field, practices regarding the destruction of

harvest residues relate more to the pursuit of old habits than to up-dated recommendations.

46. Official regulations concerning privatisation/liberalisation are specific rather that general, as discussed above.

47. **However, it should be emphasised that some regulations, while not always formal, are nonetheless specific, operational and effective.** These concern the conditions and terms of international calls for tender for the acquisition of inputs (sometimes associated with distribution to farmers) for which the specifications are becoming increasingly restrictive for the suppliers. These regulations are expressed differently in the various francophone countries, whereas in Ghana the calls for tender are national, when they exist at all. These are regulations that have been recently revised, and that are under review (Benin and Mali).

48. **Regulations are not necessarily required for achieving high efficiency**. This is the case for seed production, with the establishment of seed production plan, distribution of seed production zones, allocation of financial incentives for good practice to seed producers, and management of ginning operations adjusted to ensure the varietal purity of the seeds. It is also the case for seed certification with, in theory, the public services sharing this role (depending on the national research service for example). Regulations are not necessary because it is in the interest of the executing actors to provide good quality and efficiency, so self-regulation operates. The end result is that regulations are replaced by the imposition of private rules which can be effective, as demonstrated by the absence of complaints about insufficient quantity or poor quality of seed. Similar private rules can be found in other fields also, particularly in decisions over seedcotton collection points (markets) to arrive at compromises that limit the transaction costs for the cotton company (Cameroon) while at the same time satisfying the need of proximity to the producers.

2.2.3. Diverse impacts of intra-professional coordination

2.2.3.1. Institutional recognition established almost everywhere, in various forms

49. **Farmers' representation has gained true recognition in practically all the countries concerned** (except Ghana), and can play a dominating role in decisions related to the cotton sector in some of the francophone countries (Burkina Faso, Benin, Côte d'Ivoire) although it is not yet possible to generalise. It should be emphasised that in Ghana, so long after liberalisation, there is no recognised farmer representation and it is debatable just how representative are the farmers who haggle over prices with the ginners. In this country, the Cotton Farmers' Association has been set up for one year and active branches at the regions, districts and villages are yet to be established. The example of Ghana suggests that there is a paradox in a process of liberalisation which does not engender farmer representation while this could have served to reduce transaction costs. We can also confirm that liberalisation, which denies all coordination other than that of the market, cannot engender this type of representation.

50. **Two main types of farmer groups are found,** cooperatives (Côte d'Ivoire) and economic groups (the other francophone countries) with statutes that are variably defined and formal. Associations, which previously affected practically all farmers, are becoming confined to cotton producers, as a consequence of the same problems encountered for the management of joint liability. This is particularly effective in Burkina Faso and Cameroon. In Mali, the option chosen is not yet widely applied, while in Côte d'Ivoire cooperatives that can federate all farmers**,** whatever their agricultural activity, are still preferred.

51. **The movement of farmer groups to unite into federations is not widespread.** Mali, although a forerunner in the process of setting up cotton farmers' associations, is the

country where the federative movement is the least advanced. National representation of the farmers arises from the process of federation (Benin, Côte d'Ivoire, Burkina Faso and even Cameroon) or from an alternative, trade union type, structure (Mali).

52. At the same time as the farmers' institutions are gaining recognition and power, there are signs of a trend towards disunion between farmers, so that, outside Burkina Faso and Cameroon, farmers' representation tends to be multi-partite, even though a single entity often maintains dominance: several trades unions in Mali, several federations in Côte d'Ivoire, while in Benin the Fupro Federation is not unanimously supported by the farmers.

2.2.3.2. Associative movement and dissent between ginners in privatised contexts

53. The Associative movement among ginners began with liberalisation in the francophone countries, even though this movement is not perceptible in Ghana where privatisation took place earlier. The creation of an association is a new occurrence in Côte d'Ivoire, while in Benin there are already two different associations with opposing positions on the problem of the distribution of the ginning quotas.

2.2.3.3. Associative movement of the agricultural suppliers not widespread and hard to define

54. The process of coordination between input suppliers is definitely most obvious in Côte d'Ivoire (Uniphyto). This process is recent in Benin and has already led to two distinct associations being formed, while in Mali the association being created only aims at drawing together national enterprises. It is not easy to evaluate the impact of this process of coordination on the conditions of input acquisition.

2.2.3.4. Associative movement of transporters : variable impacts

55. In all the countries, the transporters are united in a trade union or federation on a local or national scale. These institutions do not all have the same weight in negotiations with the cotton companies. With reference to the transport of seedcotton in particular, these institutions are weak in Mali and Burkina Faso, but stronger in Benin and Côte d'Ivoire.

2.2.4. Efficacy of coordination based on sustainable bilateral relations between cotton companies and the farmers

56. One expression of this efficacy concerns the quality of information for defining the needs in production factors and for estimating expected production, calling upon the system of coordination between farmers (farmer groups). The costs associated with this are minimal, while it enables the farmers to be supplied with appropriate quantities, which has for example the positive effect of limiting the costs in acquiring inputs. This type of coordination operates in countries where coordination between farmers has been working for a long time, such as in the francophone countries, but not in Ghana.

2.2.5. Range and limits of inter-professional coordination

57. Inter-professional coordination is effective in three countries (Benin, Côte d'Ivoire and in some extent in Burkina Faso), but the extent of this coordination is variable. In Benin, it is not an exaggeration to say that the inter-professional organisation called A.I.C. carries out a vast range of functions, as did the discredited para-governmental bodies, has its say at any stage and even carries out certain tasks itself. In Côte d'Ivoire, Intercoton appears to be confining its role to the supervision of an increasing number of functions. In Burkina Faso, the management Committee of the cotton sector is limiting itself to steerage.

58. The activities of inter-professional bodies do not cover every technical stage of the commodity chain, and stages been looked after may vary between countries. In Benin,

most stages are covered. The A.I.C. takes care of extension with its own network of technical staff. In Côte d'Ivoire in contrast, intensions to do this are only now being expressed. The A.I.C. of Benin also stands out for its supervision of input supply. On the other hand, inter-professional bodies take care of the grading of cotton fibre in both Benin and Côte d'Ivoire, but not in Burkina Faso.

59. Changing over to management by inter-professional bodies does not appear to guarantee short term efficiency, as it is illustrated by the disagreements over input supply in Benin. In general, it is too soon to judge whether management by inter-professional body has any positive effect.

2.3. Relationship under Contract

2.3.1. Invitations for tender are common practice, but conditions vary

60. Resorting to invitation to tender is common practice but conditions and the way they are implemented differ between countries. Conditions may be set by the regulations in force, as for the acquisition of inputs in the francophone countries where the amounts demanded permit international calls to tender to be issued with stiff conditions and taking into account specifications concerning packaging and quality control. In Ghana, the invitations to tender, when they exist at all, are only sent out nationally.

61. Invitations to tender may be used for the transportation of cotton products (national invitations) but only in a small number of the countries covered by the Resocot Project.

2.3.2. Selected formalisation through contracts

62. The relationships between actors in the transactions concerning products or services are not systematically made formal with a contract. In general, contracts are established between actors upstream and downstream of cotton production, but this is not so often the case for the operations through production to the processing of cotton products.

63. Input supply is made formal by contracts in all the countries, but this practice can give rise to double contracts, as in Benin where the suppliers are linked to the CAGIA (farmers' cooperative in acquiring agricultural inputs) on the one hand and to the producer groups on the other.

64. The establishment of contracts does not apply to seed supply, in which a single distributor is associated with a large number of producer groups. Contracts are not used for the commercialisation of seedcotton either. This is due as much to the myriad of producers concerned as to the pursuit of an old, informal, practice, which has worked well. These practices are evolving a little in Benin, where a system of quota distribution of the seedcotton produced exists among the ginners. The farmers' federation (FUPRO) enters into a contract with the ginners by which it promises to supply them according to the agreed quotas. This is an unusual phenomenon in the framework of a commodity produced by individual farmers.

65. The transportation of seedcotton may be carried out under contract in Benin and Côte d'Ivoire. Elsewhere this is done by a simple assent and the hauliers are paid for the work done depending on the quantities transported and the distance covered.

66. All international sales are of course made formal with regular contracts for each transaction. This is also the case for local sales of fibre or cotton seed, in the form of annual agreements in which the quantity, price and delivery conditions are stipulated. It should be noted that these agreements are not always respected to the letter (Côte

d'Ivoire and Cameroon) and this gives rise to remonstrations on the part of the oil extractors and spinners. These complaints relate to quantity and more often to quality, since the ginners tend to direct the poorer quality fibre towards the local market.

2.4. Price formation similar, despite different organisation modes

67. In the analysis of price formation, we distinguish cases in which the farmers are directly or indirectly affected.

2.4.1. A strong trend towards the administration of the prices that affect farmers directly

68. The stages concerned by the formation of these prices cover input supply to farmers (related to the stage of acquisition of inputs from suppliers), the supply of seed and buying the seedcotton produced by the farmers. For the formation of these prices, many similarities are found between countries.

69. **The reduction of the tax burden is evident** in all countries, particularly since the application of common rules within ECOWAS. This reduction concerns buying inputs and has a knock on effect on their supply. Mali stands out however because of the controversy over the extension of the tax on financial affairs **(**"Taxe sur les Affaires financières") to the input credit that farmers benefit from.

70. **There is a general lack of competition in the farmgate price,** applying as much to the selling prices of inputs as to the buying prices of seedcotton. This absence of competition also concerns Ghana, and this even before the system of local monopolies was adopted, demonstrating that the hypothesis of price competition following liberation is not always confirmed.

71. This absence of competition stems from the generalisation of the approach of price administration, whether in a public (Cameroon), inter-professional (Benin, Côte d'Ivoire, Burkina Faso and even Mali even though there is no interprofessional institution) or private (Ghana) form. It is this administration of prices which **is also behind the continued application of the same prices over the entire territory** (pan-territory prices) in all the countries.

72. In such an approach of price administration, the role of the State is theoretically very small, or at least shared to a greater extent with the other stakeholders. If reality seems to resemble the theory for the formation of input prices, its is less so in the case of seedcotton: the State explicitly accepted to make up a complement to the price borne by the sector in Mali during the 2000/2001 season while in other countries the price paid to the farmers had never been as high as that set for the season when world prices were at their lowest…

73. **This can be explained by the opening made to farmers in the price negotiation.** This process applies in all the countries, even in Ghana, but it should be recognised that the negotiating power of farmers varies between countries; this is weaker or merely symbolic in Ghana and Cameroon.

74. **Concerning the commercialisation of seedcotton, the principle of a minimum price and staggered payment (two-step payments) is also generalised.** Ghana is the only exception, with a fixed price, single payment, system. Nonetheless, countries do vary in the way they calculate the minimum price and the post-sale complement paid for cotton fibre. In Benin and Côte d'Ivoire, and more recently in Mali, **new formulas for calculating the buying price of seedcotton are being used**. Compared to the old formulas, which are still in force in Burkina Faso and Cameroon, the new ones differ by referring explicitly to the world price (rather than the cost price of lint) and by

integrating the production costs to the farmers. It should be noted that these new calculation formulas are already being criticised, particularly in Côte d'Ivoire.

75. **The *de facto* abolition of the inter-annual stabilisation of the buying price of seedcotton seems to be established** with the end of all financing of stabilisation funds, even though the question is resurfacing. This change should be qualified however: in fact, in order to avoid excessive inter-annual fluctuations, so-called « political » prices can come out of inter-professional negotiations. It is too soon to judge what the effects of a poorly anticipated drop in world prices would be on the financial viability of the cotton sectors and on the cohesion between its stakeholders, but the risk is real**.**

76. **The cessation of all explicit subsidies to the use of inputs is also general** to all the countries, with farmers paying the true price calculated in function with the acquisition price plus the demonstrated costs encountered up to delivery to the farmers**.** The modes of calculation are not explicit in any of the countries, but are the subject of discussions to which the farmers take part in some of the countries (Benin, Côte d'Ivoire, Burkina Faso and Mali). This does not happen in Ghana, where farmers seem to have to bear the variations in exchange rates and steady inflation on their own.

77. **Concerning seeds, a generalised mechanism exists to support their use,** and is explicit in all francophone countries, though less so in Ghana. Farmers are supplied with seed free of cost, or only pay for the cost of seed treatment chemical. Production has a cost, however, particularly where a premium is paid to seed producers in the form of a higher buying price for seedcotton destined for planting seeds (Mali, Burkina Faso and Cameroon). This type of support is not controlled by specific regulations and is more a matter of following longstanding practice or lasting informal regulation of a private nature and which would be hard to change quickly. It would be incorrect to speak of subsidies for seed use, in that the cost of the support is not borne by public funding but by players of the sector in a viable and explicit manner. It should be noted that when the sector went over to being managed by the inter-professional organisation in Benin, the cost of seed to the sector was still explicitly retained.

78. **Inputs are supplied to farmers on credit in all the countries,** but the terms of credit vary a great deal. In Ghana, till 1996, this credit was not even preset clearly as such, since it is deduced in the calculation of the buying price of seedcotton. This country has explicit input credit since then. In other countries, the rate of credit is implicit (Cameroon). Where the rate of credit is specified it can vary between countries or from one supplier to another in the same country (case of Cameroon or Côte d'Ivoire, where cotton companies and farmer organisations may both supply inputs). Cash sales of inputs are considered or even encouraged with the application of an advantageous price differential, but in all the countries the volumes concerned by cash sales are insignificant, demonstrating that the sale of inputs on credit is a good solution to the farmers' constraint of cash flow.

2.4.2. Dominance of market forces and negotiation on the prices affecting farmers indirectly

79. The technical stages concerned by these prices are the acquisition of inputs, the transportation of cotton products, ginning and the sale of cotton products.

80. Concerning relationships with the suppliers for the acquisition of inputs, Ghana stands out by its weak bargaining position due to the small volume of its demand. This demand may be split between several cotton companies.

81. For the transportation of cotton products, and also for inputs in certain cases, the prices are those of the market, negotiated according to more or less complex modalities. In

Benin, the inter-professional organisation negotiates the prices with the hauliers, using calculations that integrate many parametres : the condition of the tracks, distance, etc.

82. Charges for ginning services only exist in Ghana where cotton companies operate, or operated in the past, without a ginning unit. A common price for this service was decided by all the ginners, but was not respected. All the ginners with under-used capacity were tempted to gin more, and accepted lower prices in order to do this.

83. All exports of cotton products are carried out according to market prices, it is in local sales that relations vary with stakeholders down-line. The application of market prices is only imposed in Ghana. In the other countries prices are administered in such a way as to be of benefit to the spinners (Benin and Cameroon), or neutral (Mali and Côte d'Ivoire), or according to a principle of mutual advantages to cope with the risks of world market fluctuation (Burkina Faso). In all these procedures of price administration, the reference is most usually the world price (although certain countries have not abandoned the notion of the cost price for lint, as in Burkina Faso and Cameroon). The negotiated prices correspond to an average price to be applied throughout the year.

84. Concerning the supply of seeds to local oilseed crushing mills, prices are generally controlled (Burkina Faso, Mali and Benin). Cameroon differs from the others in that ginning and oil extraction are integrated. The fixed price does not necessarily suit the seed sellers: in Benin the ginners have the possibility to export and find it hard to accept their obligation to sell locally at a lower price than the one they could obtain from export. In Côte d'Ivoire, the privatisation of the ginning mills has also led to the use of negotiated market prices, although this is not entirely respected in practice.

2.5. Similarities, diversity and variable trends in conditions and terms of transactions

85. By following the sequence of technical stages in the sector, we now go on to an analysis of the terms and conditions of transactions or of service provision for main areas of interest. In this, we do not address the special cases of integration such as for ginning (integration of buying and ginning valid in all countries, except for the low and declining production in Ghana) or the classing of lint. Concerning this last aspect, in certain countries a separation is underway for this function to be transferred from the ginners to inter-professional organisations (Benin and Côte d'Ivoire).

2.5.1. Advantageous conditions for financing the acquisition of inputs in a few countries

86. **Credit is not granted by the input supplier in all countries.** While this is not unexpected in Ghana, for various reasons (including the small volumes concerned), it is now the case in some African francophone countries also. In Benin, the system of calling for tender and the emergence of numerous national suppliers seem to be behind the discontinuation of credit provision from the international suppliers (who in fact are the same ones supplying products to the national suppliers and no longer to the actors in possession of a guarantee in the form of cotton lint). In consequence, the national suppliers are obliged to turn to the domestic financial market, which offers less advantageous conditions. In Mali, the farmers' unions which had had to supply certain inputs found difficulty obtaining the products from the international suppliers because they could not present the required guarantee.

87. **Supply credit is beneficial** because the international operators have an indirect beneficial effect on advantageous interest rates on the international financial markets. Competition in Mali has even pushed these suppliers so that they themselves have decided to grant a supply credit of 360 days, while the contract conditions stipulate only 240 days. Considering the procedure of input repayment in this country, which is of a period well inferior to 360 days, this is a loan which contributes to the cash-flow

of the beneficiary cotton company. On the other hand, resorting to the local financial markets does not necessarily imply excessive penalisation, since preferential rates may be obtained (e.g. in Benin). In some cases loan conditions are generalised, with very high interest rates (45% in Ghana), which can weaken the financial viability of the cotton companies and enable the input suppliers to control them.

88. The possibility of paying for inputs in local currency is another advantage available in francophone countries due to the parity between the FCFA and the Euro and the effective control of inflation. The situation is quite different in Ghana where inflation is high and exchange rates fluctuate widely.

2.5.2. Common type of input sales to farmers

89. The nature of input sales has become explicit everywhere. This was not the case in Ghana where a method integrating the cost of the inputs was used to calculate the buying price of seedcotton. This method was introduced to reduce the losses related to the diversion of seedcotton by farmers (who were selling their production to a different ginner to the one who had supplied the inputs).

2.5.3. Variable terms and conditions for credit associated with the distribution of inputs to farmers

90. We have already emphasised that the distribution of inputs to farmers is made almost exclusively on credit, with cash sales accounting for insignificant amounts. Most often, the credit set aside for this is collective, attributed to a group of smallholders in which a joint liability mechanism operates to deal with repayment defaults by certain members. The interest rate is not always specified. It should be noted that distributors other than the cotton companies may apply higher interest rates (e.g. OPCC in Cameroon or cooperatives in Côte d'Ivoire). This is an indication of the possible dangers of separating different activities, which limits the possibilities for mutual support between them, also known as crossed-subsidies.

91. **It is unusual for the banks to finance input credit** to smallholder groups. It is found only in Burkina Faso and Mali where the agricultural banks replace the cotton company cotton companies for input credit. These banks pay the cotton companies immediately after input delivery to the villages, and are repaid by the latter when the seedcotton is sold.

2.5.4. Similarities, diversity and negative trends in the terms and conditions of buying seedcotton from smallholders.

92. **An early announcement of the buying price for seedcotton is made in all countries**, but there is a tendency to delay this announcement, so that it comes before marketing and not before planting as the farmers would prefer. The use of new formulas for calculating the buying price is strengthening this trend (Côte d'Ivoire).

93. **Differential prices according to seedcotton quality are also widespread** but with variable differentials (lowest in Cameroon and highest in Benin). The fact that virtually all the production is classed as first grade raises the question of the efficacy of seedcotton classification, a process in which farmers are often involved, but an explicit relationship between seedcotton grades and cotton lint types exist nowhere. **In all the countries the ginners are associated with the process of judging the quality of the seedcotton at purchase, except in Benin** where they only discover the quality after delivery at the mill. This can lead to disagreements and disputes over payment.

94. In all countries except Ghana, **the marketing seedcotton is done through farmer groups**, for which they are paid on a specified basis. **Cameroon differs in that it has adopted a system of varied premiums** paid depending on how well the village groups carry out this function.

95. This transfer of the marketing service means that marketing is done **in close geographical proximity to the farmers**. This is also the case in Ghana where it is in the ginners' interest to go to the villages for purchasing in order to reduce the risk of seeing the production being sold to others.

96. In all these cases, **the transaction costs associated with the marketing of seedcotton are at the charge of the ginners,** but where the operations have been transferred to the village groups the ginners have the possibility of reducing costs while creating a source of income for the village groups. **This is a win-win situation**.

97. A certain tendency to late payment of seedcotton is apparent, with delays well over the usual 2 -3 week period to which the farmers are accustomed (such as in Benin, and particularly with a private operator in Côte d'Ivoire). In the francophone countries, the privatisation of ginning is contributing to these delays, but other factors intervene as well, such as the extension of procedures (such as in Benin with the ginners' payment to the CSRP prior to effective payment to the farmers) or financial difficulties of the cotton companies (Mali).

98. It is fairly unusual for the banks to be involved in the payment to the producers, except in Mali and Burkina Faso, where this is also connected to the fact that the banks have taken over the input credit in these countries.

2.5.5. On the conditions of funding seedcottton purchases

99. A few countries profit from financing by off-shore banks (Burkina Faso, Mali and Cameroon) which give them the benefits of favourable conditions on the international financial markets. The other countries are not necessarily cut off from benefiting in the same way, especially those where the privatisation of ginning mills has opened the door to multinational actors.

2.5.6. On the conditions of delivery

100. Concerning input supply, delivery is most often made in warehouses shops belonging to the cotton companies. In Benin delivery is made in warehouses belonging to village groups. This development leads to greater efficiency by reducing the re-loading when it works well, but unfortunately this is not always the case, and delivery is made through the farmers' unions at the district level.

101. Inputs are distributed to smallholders close to their farms when they are needed. Delays are sometimes observed in cases when the sector is in financial difficulty because of delayed orders (Mali) or dissention during procedures of ordering inputs (Benin).

102. When cotton lint is exported, positions of delivery change and may even be reversed. Delivery in FOB position overrides the CIF position, a change related to the increased involvement of traders. This also applies to seed export, especially in Benin.

103. For local sales of lint or seed, delivery is made at the ginning mill, with the spinners and grinders organising the transport.

2.5.7. Important role of advance sales in lint export

104. For all the countries, forward sales for the export of lint are important, and sales may be contracted very early, often 4-5 months before sowing, that is 8 months before picking. This type of sale compensates for the impossibility of sales on future market, but the importance of this is positively correlated to the total volume of production.

2.5.8. Condition of financing local sales of cotton products

105. In those countries where the ginners grant supplier credit, this only concerns the sale of lint – it does not apply to the sale of seeds, which must be paid for on delivery.

3 RESPECTABLE PARTIAL PERFORMANCE REGARDING THE DEVELOPMENT GOALS

106. The work undertaken aims at identifying indicators of performance correlated with the development goals, and it is founded on the hypothesis that these indicators reveal the effectiveness of coordination: when high, they indicate high efficiency, when low they indicate coordination failure.

107. The indicators are appreciated qualitatively and relatively, in partial reference to the values observed in other countries: very favourable situation, favourable situation, unfavourable situation, very unfavourable situation. They are attributed marks so as to facilitate graphic representation: 7 = very favourable situation ; 5 = favourable situation; 3 = unfavourable situation; 1 = very unfavourable situation. Graphs are thus obtained for performance levels with regard to development goals (poverty alleviation, environmental sustainability and international competitiveness).

108. In a synthetic approach, performance refers to the partial development objectives of level 2, the state of performance is given in three forms reproduced on the CD-ROM:

- The raw data presented in tabular form : these are synthetic marks on performance for each technical stage and for the goals of poverty alleviation, environmental sustainability and international competitiveness (Chapter 3.2 of the summary of documents and output from each country). This table is derived from the marks given by each national team on the indicators and, by using the methodology developed, the relationships established between the development goals, the technical stages of the commodity channel and the indicators.
- A table presenting an analysis of performance in the form of commentaries made by each national team. This table provides a general appreciation of the performance, the technical stages of the commodity channel that contribute positively or negatively to this performance and the most significant indicators for each of the general goals of development (Chapter 7.5 of the general summary of the CD-ROM).
- Illustrations of performance in the form of graphs presenting each of the three general development goals. “Imaginary” situations, based on the best results or the worst results observed over the entire network of countries, are presented on each graph for comparison (Chapter 3.3 of the summary of documents and output from each country). The best results thus correspond to the « class genius » (not the outright champion in the world of cotton). This clearly legible presentation enables each country to compare its performance with the others.

109. **It should be emphasised that the there are two drawbacks to the qualitative and relative evaluation of the performance indicators.** The first relates to a certain amount of missing data in the data set that the national teams were able to collect. BY retaining the option of attributing a mark to any missing indicator that gives an unfavourable appreciation, there is a tendency (but this is intended to be interpolative) to penalise a perception of performance that cannot correspond to reality. The second drawback relates to qualitative appreciation, which is subjective, even when guidelines are established as a support to this appraisal. **The risk is even greater when the exercise is carried out individually rather than collectively**: this justifies **the need for a collective approach to carrying out the qualitative appreciation of the indicators**.

110. **The effect of imprecision, or incorrectness, of appreciation** may however be diminished (but not totally eliminated) when it stems from the fact that a large number of indicators are considered inducing then some compensation effect. Indeed, the

analytical approach used here establishes multiple relationships between the development goals and the performance indicators, and **this increases the further up we go in the tree of objectives that we have constructed.**

111. In this report we have chosen to restrict ourselves to commenting on the analysis of the graphs available on the CD-ROM in Chapter 3.3 of the country summaries, some of which are presented here. The detailed analyses found in appendixes 1.2.and 3 identify, for each partial objective of level 2, the technical stages which have a positive or negative effect on the observed performance and the indicators that illustrate this effect. We will also comment on the differences between countries. Nonetheless, given the two drawbacks related to the exercise of indicator appraisal, there is a risk that the results are biased and so not fully representative of reality.

112. We analyse performance according to global development goal, concentrating on maximal and minimal levels of performance for each partial objective of development and emphasising the most outstanding differences between the countries in the network.

3.1. Performance on improving the contribution made by the sector to poverty alleviation

113. We present the graph for Cameroon, along with the graphs for the imaginary « class genius » and « class dunce ».

114. According to our marking system, the periphery of the "spider web" corresponds to the overall performance of the "world champion" with a maximal level for each of the partial objective of development. We find that the "class genius" of Résocot (here on known as 'max curve') is still a long way from this coveted performance, more or less dependant on the partial objectives, except for "increase cotton income from the least advantaged cotton farms".

115. **Without being perfect, the overall performance of the max curve is still very respectable, corresponding to a mark of 5 or 6 in general on a scale of 7. Thus, for the network as a whole, the target of poverty reduction is correctly attained for each of its components.**

- Especially for the partial objective « increase the income share of the worst-off producers" as indicated earlier, proof of a choice for a certain degree of equity that is useful to point out.
- But also for the partial objectives :
    - « increase income by decreasing the cost of inputs »
    - "increase income by improving the productivity of producers» ,
    - "reduce the risks due to natural factors",
    - "improve food security",
    - "increase the number of cotton producers",
    - "improve road infrastructure",
    - "improve the service of training /extension"
- on the other hand, the level is only just above average for the following partial objectives:
    - "increase the income by increasing the price to the producers"
    - "reduce economic risks"

116. Among the countries of the network, **none can pretend to be the « class genius »** since the curve of no one country follows that of the «max curve ». In fact, it is the francophone countries that contribute to plotting the level of the 'max curve' - each of

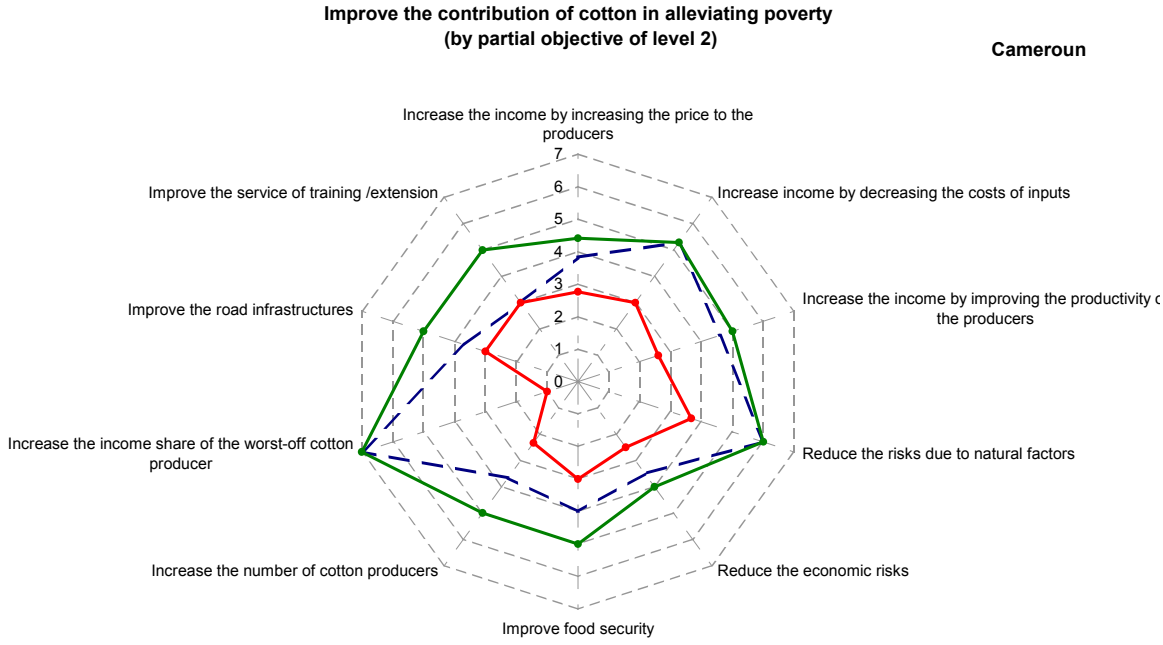
them contributes a maximum performance unattained by the others. In other words, each of these countries is a positive point of reference which can serve as inspiration for the others.

117. It should be emphasised however **the exception of the partial objective « increase the income share for the worst-off producers» for which the maximal performance is attained by all the francophone countries except Benin**.

118. Other maximum performances (among the countries in the network) for the partial objectives are attained by several countries. These are :

- « improve the income by increasing the price to the producers » attained by Mali and Burkina Faso,
- « increase incomes by improving the productivity of producers » by Burkina Faso, Côte d'Ivoire and Mali,
- « improve food security » by Burkina Faso and Mali, and
- « improve the service quality of training/extension» by Benin and Côte d'Ivoire.

Figure 1. Performance of Cameroon regarding the contribution of various factors to poverty reduction



119. No country in the network can be chosen as the « class dunce » either, even if the curve for Ghana is close to the 'min curve'. Neither are the performances corresponding to this curve catastrophic (i.e. corresponding to grade 1), except for the objective « improve the income share for the worst-off producers ». **What we find is that within the network, the most marked opposition between countries concerns this objective, which deals with the differentiation process between smallholders.** This objective aside, the differences between the max and min curves are not so great.

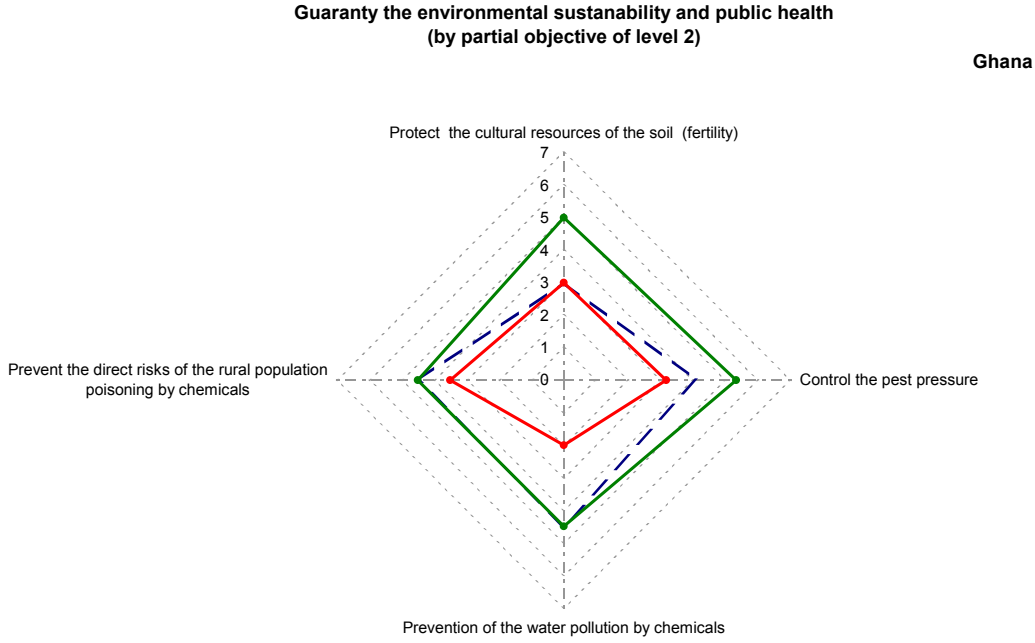
120. It is important to note that the francophone countries also contribute to the minimal performances, but in different ways, indicating that **good performance for certain partial objectives does not protect against poor performance for other objectives**. Thus:

- Benin contributes to the minimal performance of "improve food security" and "improve road infrastructures"
- Burkina Faso, Mali and Cameroon contribute to the minimum performance of "improve the service of training/extension"

3.2. Performance in providing guarantees of a sustainable environment /public health

121. We present the graph for Ghana to demonstrate that the optimal performance is quite far from the edges of the 'web', but is still **respectable** with a mark of 5 (on a scale of 7) for the four objectives concerned.

Figure 2. Graph 2 Performance of Ghana regarding environmental sustainability



122. The 'max curve' shows that no individual partial objective stands out. The differences with the 'min curve' are also similar, except for the objective « prevention of the direct risks of poisoning of the rural population" for which the difference is smaller.

123. Among the countries in the network, none can be designated as « class genius ». Ghana stands out for displaying maximum performance for two objectives ("prevention of water pollution by chemical products" and « prevention of the risks of direct poisoning of the rural populations"), but also the lowest for the objective "Protect the cultural aptitudes of the soil" .

124. The countries do not show a common pattern of performance. Cameroon's performance is the opposite to that of Ghana, while the other countries most often show average performance for each of the four partial objectives.

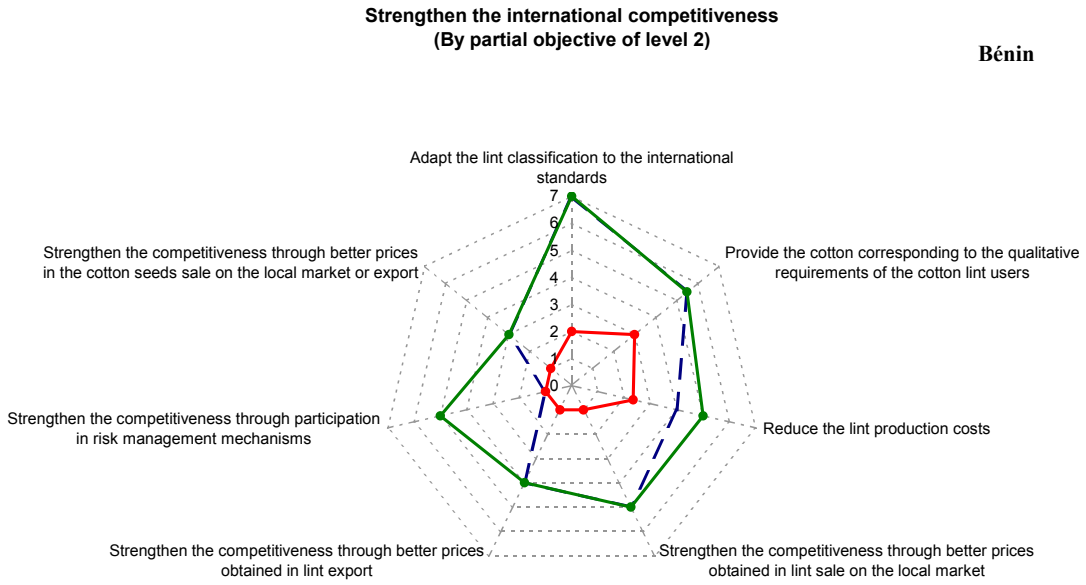
125. It should be noted that there are fewer relationships between the objectives and indicators, which makes the evaluation of performance more sensitive to the pitfalls of the appreciation of the indicators, particularly because a certain amount of data is missing.

3.3. Performance in strengthening international competitiveness

126. We present the graph for Benin to demonstrate that the 'max curve' is distinct from the "world champion" except for the partial objective « adapt the classing of lint to

international standards". The level of performance for the partial objective "supply cotton corresponding to the requirements of the cotton lint users » is also very good.

Figure 3. Performance of Benin regarding competitiveness on the international market.



127. In general, the level of the « max curve » is **highly respectable** with marks of at least 5 (on a scale of 7) for all the objectives, excepting « strengthen competitiveness by obtaining better prices in the local sale or in the export of cotton seeds », due in particular to the fact that not much data was transmitted for this by the stakeholders in the sectors. This remark also applies to several other partial objectives, which leads us to emphasise that these results should be treated with some reserve.

128. Among the countries in the network, none can claim to be the « class genius », although Benin does stand out well by supplying five of the maximum performances observed. Two of these owe much to the use of HVI equipment for the classification of cotton lint even though it does not yet concern all the production.

129. Several countries contribute to the observed maximal performances :

- Burkina Faso and Mali for the partial objective 'reduce lint production costs »
- Burkina Faso, Mali and Benin for the objective « strengthen competitiveness by obtaining better prices in the local sales or in the export of lint » and « strengthen competitiveness by obtaining better prices in the local sales or in the export of cotton seeds ».

130. In short, 3 countries - Benin, Burkina Faso and Mali - constitute the **leading group concerning the objective of international competitiveness**, with the proviso that the data communicated was inadequate.

131. On the other side, Ghana's performance is almost identical to the « min curve », except for a slight difference for a single objective. It is probable that this performance suffered a great deal from lack of data, but not necessarily more than for the other countries.

132. The differences in performance between the "max" and "min" curves vary more depending on the partial objective – they are particularly great for the objectives "adapt lint classification to international standards" and "strengthen competitiveness through obtaining better prices for the local sale of lint".

3.4. Partial conclusion

133. It is clear that the evaluation of performance regarding the general goals of development by breaking these down into partial objectives is worthwhile. The maximum performance obtained for each of the general objectives (marked on a scale of 7) was **highly respectable**.

134. The possibility of **dividing up the evaluation of the general performance of the cotton sectors of the different countries is an originality of the Résocot project.** This partial approach is carried out on **two levels**, one referring to the performance of 3 general goals of development, and the other, within each of these general goals, referring to the corresponding partial objectives. This approach makes it possible to stop talking about performance loosely or referring to development goals in general, but to place performance at the level of stated objectives that are less general and less distant.

135. Within the Résocot project, **there is no « class genius »** who reaches the maximum performance for all the partial objectives. Certain countries manage to accumulate the best performance for several partial objectives, but they are not often the same ones. This result indicates that, in practical terms, the countries can take inspiration from each other to fill the gaps in performance that may exist between them.

136. There is not really a "bottom of the class" even if Ghana stands out with performances that are often identical to the minimum level observed.

137. It is observed that, for each of the general goals of development, the fact that one country manages to attain maximal levels of performance for certain partial objectives does not protect it from having minimal performance for others. **This may indicate a tendency to give priority to certain partial objectives, with a negative impact on the others**. It follows that balance between the partial objectives is not the same in every country, and could hardly be same for all countries. It may be that the balance found in any country is the explicit or implicit choice of a dominant stakeholder.

138. With evolution towards a more collective, inter-professional management of the sectors, the possibility arises for **aiming at obtaining a negotiated balance**. **We believe that the initial results of the Résocot project help to decide the composition of groups of objectives, or even to help rank them** to arrive at a balance that is acceptable for all the stakeholders.

139. Finally, it is useful to bear in mind that the evaluation of the most general performances depends on that of the indicators, which can suffer from a lack of transmitted data. Through the analytical approach of linking the objective and the indicators of performance which leads to a large number of relationships, certain robustness is given to the analysis through the effect of compensation between the indicators. Nonetheless, the lack of communication (to various extents in the different countries) during the Résocot project concerned a considerable amount of data and there is therefore a degree of imprecision in the results of analysis undertaken. We do not believe that this makes the methods and the tools developed any less worthwhile if the pitfalls related to the evaluation of the indicators can be avoided (as mentioned above).

4 THE EFFECT OF THE ORGANISATION MODE ON THE PERFORMANCES OBTAINED

4.1. Reminder of the method used and the approach taken in to produce the regional synthesis

140. We present here a short description of the method followed. For more details, refer to chapter 5.5.1 of the CD-ROM.

141. To define the effect of the organisation mode on the performance of the cotton sector in each country, we **approached the problem through a study of qualitative considerations** for each of the development goals (at level 1 of partial objectives), combining performance indicators and elements corresponding to the organisation of the sectors. In order to have sufficient precision, a large number of qualitative aspects are retained. General key factors of performance were defined to convey the effects of the organisation mode. **There were 9 of them**, each corresponding to a sub-set of well-identified qualitative considerations. **These key factors relate to the capacity to improve performance :**

- The capacity to adapt to market fluctuations through maintaining price competitiveness,
- The capacity to resist market fluctuations through maintaining competitiveness in quality,
- The capacity to raise productivity in cottonseed production,
- The capacity to mitigate the effects of changing natural conditions,
- The capacity to promote sustainable production that preserves human health and the environment,
- The capacity to maintain farmers' commitment to cotton production,
- The capacity to maintain the commitment of other players to cotton production,
- The capacity to provide public/collective goods and services,
- The capacity to avoid or to manage conflicts between cotton sector stakeholders.

142. Key factors are distinct combinations of qualitative considerations, and these combinations vary according to the development objectives to which they refer. So, a change in the organisation mode will modify the levels of some qualitative considerations which spill over only on some key factors but not necessarily with regard to the whole set of development goals.

143. Resorting to this approach of passing through qualitative considerations results from the concern of going beyond a static assessment of performance with no clear connection with the organisation modes. Levels of key factors correspond somewhat to indications of performance if the organisation mode remains unchanged, they show also how such levels could be improved or depreciated in case the organisation mode evolves in a positive or a negative direction. It is nevertheless not easy to link the key factors levels with the levels performance indicators of the former section. Performance indicators levels refer directly to development objectives, with no clear connection with organisation mode while levels of key factors are more directly influenced by organisation modes but are only linked indirectly to development objectives.

144. The main lessons relating to the effect of the organisation mode on performance are derived as follows :

- Firstly, by an analysis of the qualitative considerations contributing to each of the partial objectives of level 1, with indications of any differences between countries and descriptions of the effect of the organisation mode on the observed differences.
- Then, by an analysis of the levels of the key factors. This additional analysis is required in order to avoid the artefact of considering the partial objectives as being separate from each other (when in fact they can be in synergy or opposition). It is also needed because the headings of the key factors are far more general than those of the qualitative considerations, and there is even a certain universality about them which will facilitate comparisons with analyses of other sectors. This type of analysis gives a more dynamic view of performance: the performance that might be expected in the short term if the organisation mode remains unchanged, or the prospects for improvements if the organisation mode were to evolve.

145. It should be noted that we are addressing the partial objectives of level 1, a level above the partial objectives of level 2 that were analysed in the previous chapter. Of course, it would, theoretically, have been possible to define the qualitative considerations related to the partial objectives for level 2 also, but this would have greatly increased the workload.

146. In our analysis, the reference to different organisation modes poses a problem of semantics. It is not possible to talk of a liberal mode because this type of mode, in its pure form, operates in none of the countries of the Project. Nor is it possible to speak of organisation modes with monopolies in the francophone countries, since they are quite different from each other. To avoid giving the false impression that we oppose the anglophone and francophone countries in our analysis, we must also avoid, as far as possible, referring to the countries in these terms. Therefore, we use the long expressions "organisation mode oriented by liberalisation (Ghana) and « organisation mode not oriented by liberalisation" (francophone countries). Now and again we will also refer to the "organisation mode oriented by privatisation » (Benin and Côte d'Ivoire fall into this category).

4.2. No fixed effect of the organisation mode to achieve the goals of development (partial objectives of level 1)

147. In accordance with the process of qualitative and relative evaluation, the qualitative considerations are assessed by the national teams, with marks and comments to justify them. The guidelines for assessing the qualitative considerations can be found on the CD-ROM (chapter 5.5.3) along with the summary tables of the marks and the comments on the 6 countries concerned (chapters 7.6 and 7.7).

148. In this report we aim to identify the differences between countries for the way qualitative considerations contribute to the development goals (more specifically, the partial objectives of level 1) and to define the impact of the variations in the organisation mode of the national sectors in order to explain the observed differences.

4.2.1. Several advantageous factors for increasing producers' income from cotton

149. **The evolution of the price of seedcotton cannot be considered as being positive** in any of the 6 countries in the network due to fluctuations over the last three seasons, and is even expressed as a decline (Côte d'Ivoire). **In none of the countries is there price competition for seedcotton.** While this is not surprising for the non-liberalised (francophone) countries, the absence of price competition in Ghana, even before Zoning (decision to attribute local monopolies as from the 2000-2001 season), is a negation of liberal economic theory. **Farmers do however have a say in the administration of the buying price, by taking part in the discussions to fix this price. This participation is effective** in all the countries, even in Ghana, but it must

be admitted that the **degree of impact to the advantage of the smallholders varies from country to country**. This degree of impact depends less on the system of coordination (monopoly of sales or not) than on the characteristics (age, how it is run) of the farmers' association or cooperative and whether a federative approach has helped to reach adequate recognition of farmers' institution. In this, the countries of Benin, Burkina Faso and Côte d'Ivoire are ahead of Mali, then Cameroon, with Ghana (where the presence of farmers in price negotiations is more symbolic), trailing behind. The age of the association is an important factor, since time is required for the farmers to build up the strength of their institutions. This not only concerns the relationships between the farmers and the cotton companies, but the duration of the relationships between farmers within the associations. However, the liberal principle which encourages the farmers to turn to the highest bidder and change partners each year pushes them to working out relationships on a yearly basis. It is to be feared that this will work against the establishment of long-term relationships.

150. In all the countries, **the smallholders now only benefit from a minimum in the stabilisation of the buying price of seedcotton, in the form of the fixed and unique price** throughout the season and in all cotton zones. This was true in Ghana, even before the adoption of the 'zoning' system, when the sale of seedcotton was liberalised and operators were supposed to be competing for prices throughout the selling period. In the countries where the sale of seedcotton is not liberalised (the francophone countries), **the institution of inter-annual stabilisation has disappeared** due to the cessation of all procedures for supplying the stabilisation funds. In practice however, there is still some scope for this through the mechanisms of annual negotiation of the buying price, in which the farmers participate. Out of this process "political prices" have emerged that are higher than what world market indicators would have allowed (the case of Mali in 2000/2001, which is even cited by the ICAC).

151. Efficiency in the marketing and processing cotton products does not have clear impact on the price paid to smallholders, even though efficiency is not in the least penalised by the system of export taxes on cotton lint for example. This is undeniably the case in Ghana where private operators are not subject to outside control of their activities and also for the countries where sales have not been liberalised. Regarding terms of payment, in the liberalised-country of Ghana, **smallholders benefited from short terms** (since it was in the ginners' interest to arrive early for buying and to pay the farmers in case the farmers were tempted to sell to another ginner), in accordance with neo-liberal theory. Owing to severe financial crisis of cotton companies in this country, payment have be greatly delayed. In the non-liberalised countries **this payment term tends to be getting longer than before, especially in the those countries where ginning is privatised** (the case of Mali is different, due to financial difficulties in the sector). In these countries, **price systems with two-step payment dates**, either following the "refund principle" (Mali especially), or according to the new modes of calculating the buying price in reference to the world price and the production costs incurred by the smallholder. Such an application means that marketing and processing efficiency can in theory be passed on to the price paid to the smallholders, and the set up for inter-professional discussion should allow this to be applied. In practice, the knock-on effect of the refund system has been actually advantageous, it is harder to comment on the new modes of calculating the buying price of seedcotton, which are more recent and which were put in place at a bad time for the world market. **In general, it can be said that coordination by the market alone in a liberal system cannot allow smallholders to benefit from the efficient marketing and processing of cotton products. In non-liberalised trading systems, the knock-on effect is not**

automatic but can be favoured by a price fixation mechanism that takes it into consideration.

152. The evolution in input costs paid by smallholders is perceived in various ways. In none of the countries is this penalised by fiscal pressure, especially since the enforcement of the ECOWAS tax measures. However, in no country do the smallholders benefit explicitly from an input subsidy. They pay the true price for inputs, especially in Ghana where any, including strong, variation in exchange rates and inflation rates, is passed on in its entirety to the smallholders. In nominal terms, input costs have increased and it is this perception which comes out of the francophone countries, despite the increased number of input suppliers (especially for pesticides, less so for fertiliser supply, which is dominated by 2 main operators). **In these countries, input prices are determined through inter-professional negotiation, in which the smallholders participate** and the decision is ratified in an official announcement by the government. The possibility of an implicit subsidy that would benefit farmers cannot therefore be excluded. Once again, it is less the system of coordination by the market (liberalisation) or by the State (monopoly) which makes the difference than the place taken by the farmers in the decision-making bodies.

153. In general, the **smallholders** in francophone countries **have better access to inputs**, although the situation in Ghana is also adequate on the whole. In all the countries, whatever the organisation mode, the smallholders can obtain good quality products, on time, delivered close to them and on credit. Quantities used have increased. This is because the area planted to cotton has increased, while unit dosage per area has tended to remain stable, or even to decrease. While it is possible to state that, for the countries with non-liberalised markets, all the smallholders who want them can obtain the inputs they need, and the number of cotton producers has increased in these countries, it is less certain in Ghana where the phenomenon of "input and output deviation[3]" leads the cotton companies to identify the "good" and "bad" farmers and to drop the latter. This phenomenon is seen in all the countries where marketing has been liberalised, and it is therefore justified to say that this is a risk that is frequently associated with this type of liberalisation. Smallholders in Ghana also suffer from very high bank interest rates (45%) at the acquisition of inputs by the cotton companies. In contrast, in several francophone countries the farmers benefit from advantageous conditions from their suppliers, due in particular to the large volumes imported and the lower uncertainty that these suppliers see in the system of monopoly trading for seedcotton. Thus it can be seen that **the farmers of one coastal country with a liberalised economy can have to bear input prices that are higher than elsewhere**. On the other hand, in terms of technical support for input use, the countries with non-liberalised trading do not necessarily provide an adequate service in the eyes of the smallholders (complaints most forthcoming in Côte d'Ivoire and even in Benin).

154. **Farmers have not benefited from a real increase in productivity** (productivity of the land, in terms of yield) **and all the countries do not have the same prospects for improvement.** Everywhere, yields have at best stagnated, if not declined : this statement is nevertheless to be balanced by the fact that the area under cotton and the number of producers have increased in many countries. Yield levels are certainly higher in the francophone countries than in Ghana, but the prospects of evolution depend on the quality of the extension and research services. On this subject, the countries that have clear mechanisms for financing these services (Côte d'Ivoire and Benin) based on defined criteria that are indexed on performance indicators for the sector (the best example is Burkina Faso) offer the best prospects, whereas there is

[3] Input deviation benefits to food crops and therefore to food security, it should not be regarded as a mere wastage.

little hope on the horizon for Ghana. **What emerges is that it is not the organisation mode (market or State) that counts, but the supply of public goods by collective initiatives that are more far reaching than price discussions alone**.

155. Because differentiated prices are applied according to seedcotton grades while most of the production is graded at the best quality (usually over 95% of the production of seedcotton), **it can be stated that the smallholders are rewarded for the quality they produced in all the countries, whatever the organisation mode of the sector.** Some uncertainty remains concerning Ghana where information on the proportions of different qualities is lacking. Nevertheless, such a high proportion of first grade seedcotton, in spite of the high volumes produced, could also point to certain inefficiency at discriminating between qualities at a time when a decline in at quality has been indicated (especially in Benin). In a nutshell, the different organisation modes do not supply the same level of information to help assess how the small farmer benefits from the quality he produces. It is not possible to state that the organisation modes in the francophone countries are optimal for ensuring that farmer is paid equitably for the quality produced (to some extent farmers are benefiting from some complacency).

156. As indicated in the analysis concerning the evolution of input costs or knock-on effects of marketing and processing efficiency, tax barriers are no longer an indirect handicap to the producers. The only case of discord concerns Mali, where smallholders disagree with the application of the TAF ("Taxe sur les activités financières" or tax on financial activities) to the input credit accorded to villages.

4.2.2. Too few factors for risk reduction

157. **Farmers' perceptions of the risks related to natural factors do not dissuade them from planting cotton,** even though there has been much work done to inform people about declining levels of soil fertility and the evolution of pest pressure (resistance for certain pests, sudden infestation of others in some years and not others). The way the sector is organised does not influence this perception. In contrast, **economic risks are perceived more serenely in those modes of organisation where farmers effectively participate in making decisions over prices (seedcotton and inputs).**

158. Farmers have no means of reducing the effects related to the risks from natural factors, or when they do, they remain at limited scale. In none of the countries is there a system of insurance to limit the effects of natural disasters, although this is under discussion in Mali. In all the francophone countries, actions to counter soil erosion, or to manage rural community areas, have been initiated, but widespread diffusion is still hesitant. In most of these countries, a new chemical control programme to prevent and manage resistance of one pest to pyrethrinoids has been started; an approach resembling a programme of rational control (Staggered and Targeted control, or "lutte étagée ciblée" or LEC) is being applied on a small scale in only 2 countries (Benin and Mali). In conclusion, smallholders everywhere are ill-equipped to reduce the effects of natural disasters, but they can be assisted to prevent the occurrence of some of these disasters, where the organisation mode allows research and extension to really get involved, and where there is coordination for the acquisition of the necessary inputs. From this last point of view, **the mode based on liberalisation is not necessarily the most advantageous**.

159. **The removal of all subsidies aimed explicitly at inputs in all the countries does not help reduce the effects of economic risks.** The organisation modes that integrate mechanisms for negotiation including an effective role for the representatives of farmers' institutions are, however, more advantageous through the possible influence on price fixation, which reduces economic risks, and even on the adoption of implicit subsidies for inputs. These modes are in operation where the commercialisation of

seedcotton is not liberalised, but what counts, as mentioned earlier, is the real power wielded by the farmers' representatives, established on longstanding relationships between the stakeholders.

160. To cope with this risk environment, the 6 countries have some common reactions, and some divergent reactions, which have a certain relation to the way the sectors are organised. The intention to **diversify agricultural production** is often proclaimed but **rarely put into effect on a large enough scale**, since this would imply setting up, or consolidating, new commodity chains, demanding willpower, means and time. The reduced use of bought inputs is noticeable everywhere, but this is not compensated by an increased use of other inputs, such as organic manure (requiring high labour costs, animals and transport, and the quantities produced are inadequate). **In general, the number of cotton producers is increasing** except in Ghana where late payments are too great (also the case with a private operator in Côte d'Ivoire). **The same distinction is found concerning the increased area planted to cotton**, which is very clear in at least two countries (Mali and Burkina Faso), although this may be a manifestation of migration towards zones of higher or less erratic rainfall (Burkina Faso and Cameroon). **Quality is apparently being maintained, although there are already some signs of a decline** (Côte d'Ivoire and Benin). All in all, there is less farmers' commitment to cotton production in Ghana, where the organisation mode is strongly pervaded by privatisation and liberalisation, even though the farmers lack an alternative cash crop here.

161. Food security does not suffer from cotton production in any of the countries concerned and it even benefits from it in some countries, although there is a lot of room for improvement. This situation results from cash income from cotton which enables investment for improving food production. This effect is still modest, because it is recognised that food production is more often increased by increasing the area under cultivation than by improving yields, access to inputs intended specifically for food crops is still poor, and technical support for food production is still inadequate. Mali stands out from the rest, especially in the zones where land shortage has reached a stage where it is difficult to further expand the area under cultivation. There is also little incentive to increase food production through improved infrastructures for the commercialisation of food crops**. The improvement of food security calls for the supply of public goods (technical support, commercialisation infrastructures) that there is no hope of obtaining from the market alone. Neither will they automatically come from coordination by the State, or from collective inter-professional coordination because it all depends on what priority and means are given to it**. Up till now, apart from declarations of intention, the priority given to this in practice has been modest, and the current principles of concentrating activities strictly around cotton leaves little hope of a change in the present situation.

4.2.3. Absence of discrimination as a factor of improving equity between producers in terms of cotton income

162. In terms of the number of smallholders concerned by cotton income, the situation of **equity is good in the countries where the number of producers has increased**, that is, in the francophone countries (although this is qualified a statement for Côte d'Ivoire), but not in Ghana. This general increase in the number of producers must not be allowed to mask the phenomenon of geographical displacement of production, which means that certain farmers no longer concerns benefit from cotton income (Cameroon, Burkina Faso).

163. **Among the farmers drawing income from cotton, the application of a single buying price for all wherever they may live is an element of equity. This also applies for access to inputs and input credit,** but this should be less true in Ghana where there is a hint that farmers may be selected. **Theoretically, equal access to**

technical advice is another element of equity, but in practice, this statement is mitigated by two factors. The first is that the reduction of extension schemes, along with the inadequate standard of extensionists, means that it is no longer possible to reach all the farmers efficiently (Benin and Ghana). The second is that where many cotton companies operate with different strategies of technical support to cotton production (Côte d'Ivoire), it is unclear just how equal the farmers are with respect to the services to which they have a right. All these factors of equity, some needing qualification, do not eliminate the phenomenon of the difference in income related to differences between farm structures (in particular farm size, equipment). Mali is the only country to dispose of a series of statistics for four classes of farm which are retained. These statistics can help to evaluate the incidence of this structural differentiation on cotton income and, in return, the incidence of this income on the accentuation of this structural differentiation. One salient fact concerns the **decline in support for production equipment** for which agreed efforts are weak, and without which it is the 'initial wealth' of a farm that allows it to become better equipped, whereas the others are condemned to a type of farming that is quasi-manual.

164. Another dimension of equity for the farmers concerns the evolution of the added value they obtain from the cotton production and the farmers' share of the total added value. The fact that smallholders have an effective voice in fixing prices, and on the correct execution of the services they require is an advantage. This is not the case with the organisation mode dominated by the principle of liberalisation; neither is it automatic with the organisation modes that do not follow this principle. Where inter-professional administration is beginning to take shape all the elements of equity emphasised here are not yet entirely taken into consideration. This is particularly true for production equipment. This difference in the organisation mode explains why, even among the countries that are not oriented by the principle of liberalisation, the evolution of the level of added value is perceived differently (positively in Benin, Burkina Faso and Côte d'Ivoire, mixed or negative in Mali). On the other hand, farmers' appreciation of the share of the total added value they get suffers from the lack of necessary information, in such a way that this appreciation still refers implicitly to the level of the seedcotton buying price in most countries.

4.2.4. Negative trend for improvements to the provision of public services

165. In the field of communication networks (roads and tracks), the level is in general considered to be insufficient, except in Ghana where the poor condition of the network is particularly emphasised. There is no systematic improvement to this network (an improvement of this type is only mentioned for Burkina Faso and Benin) and this evolution is caused by two different factors related to the organisation mode. Where the principle of liberalisation dominates, maintenance and improvement of communication infrastructures are the responsibility of the public authorities (since it concerns public goods) and the cotton companies are not concerned. With the other organisation modes, the roles are shared between the State and the cotton companies, but the lack of means attributed to state services means that the cotton companies have to make all the effort themselves, within their means (which the situation of the world market limits to a large extent). **In fact, in the first organisation mode the risk of degradation of the network becomes a certainty, whereas the others only limit the damage**, which is neither sufficient nor satisfactory.

166. In the field of the provision of training and extension services, the degree of satisfaction divides the 6 countries into two groups in relation to the organisation modes in the countries concerned. The appreciation is negative for the organisation mode oriented by the principle of liberalisation (Ghana), but it is also negative in two countries that have not chosen this principle but that of privatisation (Benin and Côte d'Ivoire). A few more years are needed before the responsibility for this service by

inter-professional bodies in the latter two countries can be judged. Even though the cotton companies or inter-profession may, in theory, share this role with the public bodies, it is the former that intervene in practice, essentially for cotton cultivation. Thus, **the principle of liberalisation does not ensure public services** (in accordance with neo-classical theory) and **greater efficiency is not guaranteed by the involvement of private operators** (in contradiction to neo-classical theory), even in a context which protects private enterprise from competition. Intervention by public monopolies does not appear to be worse, as opposed to what is often proclaimed, even if it could be improved.

4.2.5. Small scale actions to guarantee sustainable management of the cultivated areas

167. **The perception of how land resources are evolving is globally negative,** but is not directly affected by the organisation mode of the sectors. In all the countries, the question of declining soil fertility is raised, while land availability is often more limiting, and is even the source of serious conflicts over land tenure in certain countries (Côte d'Ivoire), although not in Ghana.

168. **The means for conserving the cropping aptitude of the soils are still limited and rarely adopted on a large scale.** People are aware that there is a real need for soil conservation, but the trend is towards lower fertility and this is not counter-balanced by increased fertiliser use, or by greater use of organic manure, or by an extension of anti-erosion activities, and even less by the introduction of new cultural techniques. **The countries with a organisation mode non-oriented by the principle of liberalisation have nonetheless made more efforts to promote these actions, with results varying among the different countries. Mali stands out for actions on the prevention of soil erosion and the promotion of organic manure, while Cameroon is exceptional in its large-scale adoption of non-conventional cultural techniques.**

169. It is also in the countries with a organisation mode non-oriented by the principle of liberalisation that there have been attempts at collective approaches to the problem of fertility (through actions against erosion or land management at the level of the villages), but since large- scale diffusion is blocked, the individual approach seems to be more realistic.

170. **The perception of how pest pressure is evolving is negative in all the countries,** in terms of higher degrees of infestation, incidence of some resistance to some insecticide, or sudden heavy attacks of secondary pests at certain times (for example, whitefly in Burkina Faso) sometimes associated with physiological disorders (red cotton disease in Mali). It is hard to establish a direct link between these changes and the organisation of the cotton sectors.

171. **The effect of the organisation mode can be expressed through certain ways of reducing pest pressure. All the countries have access to insecticides of good quality,** but these products may be contaminated by the influx of products from neighbouring countries (Ghana). The negative impact of this is all the greater as the difference in prices is large and the distribution of products poorly coordinated among the actors. Training in the correct use of pesticides is available in all the countries, but the quality of the training may be criticised where this is taken care of by private operators (Côte d'Ivoire). The promotion of chemical control programmes with alternating active ingredients ("window programmes") to prevent and manage resistance from American bollworm (H. armigera) is working well in all the francophone countries, but not in Ghana. Research is also underway to develop new pest control programmes, which have yet to produce results, but the means allotted to this differ between countries – in Ghana they are apparently insignificant because the cotton companies lack interest in research, or rather in funding it.

172. The approach taken for controlling pest pressure is still generally an individual one in all the countries except Mali and Cameroon. Mali stands out because it aims to diffuse a new method of chemical control (Staggered and Targeted Control or "Lutte étagée ciblée" or LEC) which may be more effective, more sustainable, and cheaper but which requires that practices be coordinated at village level and that farmers undergo a rather laborious training (Benin has also opted for this direction, but on a smaller scale). Cameroon is setting up a distinct system for the distribution of insecticides with cost evaluated for villages rather than on the level of individuals, with aim of inciting farmers to carry out the number of treatments entered in the calculation of costs. This is also an expression of a collective approach to managing pest pressure, even if it does go against the principle of rational use of chemicals. The initiatives in all three countries arise from organisation modes that are not oriented by the principle of liberalisation, and it is reasonable to ask whether they could take place within different modes.

4.2.6. Positive trend for the prevention of harm from chemical products

173. In all the countries, little information is available on water pollution by chemical products (e.g. pesticide residues). Studies have been carried out in the cotton producing regions of Benin, Côte d'Ivoire and Mali, but their very existence is little known.

174. To avoid this type of pollution, information is disseminated and integrated in the training of insecticide use. However, the training given does not appear to be appropriate enough or well attended in certain countries (Ghana). It is in the countries where the organisation mode is not oriented by liberalisation that a positive change towards the use of less toxic and less persistent products is seen. These changes follow the recommendations of international or regional organisations, whereas elsewhere cost seems to be the most important factor (Ghana). In this context, the continued use in the former countries of endosulfan, an old product, in the application of the « window programmes » is somewhat contested by outside experts.

175. Information is also lacking on the situation concerning the harmful effects of pesticides on human health. A lot of noise was made a few years ago over cases of human death in Benin, and even if things seem to calmed down, this is a sign that there is much to be done in the field of information and training so as to reach more people, and not only cotton producers.

176. The adoption of regulations for product certification and the interdiction to use uncertified products are positive moves towards the prevention of harmful effects on human health, which go beyond the concern of the cost of the product that the application of the principle of liberalisation may push to consider solely.

4.2.7. Little action to increase competitiveness through adaptation to the qualitative requirements of the users

177. Concerning the situation of the quality of lint production, Ghana differs from the other countries in that it does not have a quality appraisal system. It is therefore difficult to appreciate the situation of quality in Ghana, whereas this appreciation is good on the whole for the countries whose organisation mode is not oriented by liberalisation, with a certain amount of fluctuation over time. There seem to be few complaints regarding quality in these latter countries, but this should be taken with reservation since it is a sensitive subject for which information is not fully communicated. On the other hand, it must be true that Ghana does not receive complaints from its clients over quality, since this is determined by the clients themselves. However, this does not guarantee that Ghana produces a good quality or that it benefits equitably from the payment for the quality it produces.

178. On the subject of quality improvement by the smallholder, apart from the application of differentiated prices according to the quality grade of seedcotton, which is practiced in all the countries, no other actions are evident except in Burkina Faso, which aims to develop varieties of a new type (that shed their leaves early). This type of action may only be envisaged in the organisation modes where funding is allotted to research on a long-term basis. On the other hand, none of the organisation modes appear to be capable of imagining additional actions for improving quality.

179. To conserve the quality of seedcotton after commercialisation, it is important that it be taken quickly to the ginneries to avoid damage by rain. This is a key issue in those countries where cotton production is important. The conservation of quality during ginning is taken care of by modern ginning equipment in all the countries with a organisation mode non-oriented by liberalisation (ginning speed adapted to the installed capacity, humidifiers). This concern does not emerge from Ghana, where the volume produced does not warrant large capacities of investment for modernisation.

180. With respect to making the most of the quality produced, all the countries demonstrate a certain hesitancy, but this varies between the countries with a organisation mode not oriented by liberalisation. All the countries are attached to the sale of lint according to the conventional classification (visual and manual « pulling », to estimate fibre length), even if some countries possess HVI machines (though not enough of them) for automatic classing, integrating a large number of technological characteristics of the fibre. None of the countries have a policy of marketing that gain advantage from the quality of its cotton. The organisation mode that protects from domestic competition does not appear to induce greater commercial aggressiveness or greater dynamism for conforming to changing standards of classification.

4.2.8. The influence of the volume produced for increasing competitiveness by reducing production and marketing costs of lint

181. In the field of the cost of seedcotton acquisition, the countries with a organisation mode non-oriented by liberalisation that transferred the farm gate collection to village organisations a long time ago are recognised for having low costs, but the diminution obtained in Mali in the last few years shows that further reduction is possible.

182. Concerning the reduction of ginning costs, the necessary information was not often supplied, meaning that it is not possible to provide an up-to-date appraisal of the situation. The organisation mode has an indirect effect, via the volume of production to be ginned induced by it. It is when the ginning capacities are not fully used that costs increase. This is the case in Ghana, where liberalisation prompted the installation of ginning capacity without inciting the increase in production hoped for, but it is also the case in the countries where ginning is privatised (Benin and Côte d'Ivoire). In addition, the modernisation of ginneries, while leading to gains in quality and ginning outturn, has a specific cost that is felt all the more when the investments are recent.

183. The information needed for judging the state of costs related to the export of cotton lint is also lacking. These costs are no longer weighed down by heavy taxation, but most of the countries suffer from a situation of established oligopoly of warehouse and port transit operators before export. The countries can do little against this situation, but two actions were noted. One consists in improving the efficiency of the way domestic transport is organised (Mali). The other aims at demanding greater fluidity in the circulation of people and goods in the sub-region (Burkina Faso). The effectiveness of these actions is not directly influenced by the organisation mode of the sectors, but rather by the volume of production and the economic importance arising from it.

4.2.9. Little information on the local sale and export of lint

184. The price information needed for producing an up-dated appraisal were not often obtained, as much for the country with a organisation mode oriented towards

liberalisation (Ghana) as for the others. This information does exist however, and is centralised in the countries with organisation modes that are not oriented towards liberalisation. It can therefore be used to help form an objective view of the price competitiveness achieved, even if this is a difficult question, with world prices fluctuating wildly and trading spread throughout the year.

185. The francophone countries often pride themselves on the good image of their cotton, without real support from objective indicators such as a level of price competitiveness for a particular type of cotton. Moreover, there is a passive attitude towards promoting the image of cotton in these countries, as mentioned above.

186. On the other hand, since it is impossible to turn to the forward market, the recourse to advance trading is potentially all the more efficient as the volume produced is large and easily anticipated. From this standpoint, the organisation modes non-oriented by liberalisation have an advantage. This advantage also works in the direction of a diversification in clients, while at the same time maintaining the loyalty of traditional customers. In all the francophone countries, this type of diversification seems to be established, even though the lack of information prevents a finer appreciation of the situation, this result is related to the diversification of the terms and conditions of sales, with sales by commission agents being added to by sales to traders.

187. No organisation mode automatically ensures efficiency in domestic sales that satisfy both the buyers and sellers of cotton lint. The system of price fixation chosen by Burkina Faso, a variant of which has been adopted in Cameroon, allows the risks linked to anticipating the world price to be shared. This proves that a win-win situation is possible. The organisation mode does not seem to have a direct influence on the success of this type of system, but rather that success is built on mutual respect between the stakeholders concerned and the desire to work together in the long term.

4.2.10. Little possibility for obtaining better prices in local sale and export of seedcotton.

188. The situation regarding the competitiveness of seedcotton price for local sales depends on the country, and more specifically on the distance to the sea for export. Benin stands out for sales that are considered more competitive on the export market than for sale on the local market, due to the State administration of prices to benefit supply to the oil mills. The organisation mode of the cotton sector can also be judged as being disadvantageous to the ginners, and the opposite by the oil extractors.

189. The influence of taxation on the evolution of price competitiveness is not easy to estimate. The estimation may be positive because export sales are not affected very much by taxes while local sales are subjected to VAT without preferential rate.

190. Private trading between ginners and oilseed crushers, sometimes with government control (Benin), determines price competitiveness and rarely ends in satisfaction for both buyers and sellers (dissatisfaction dominates in Benin and Côte d'Ivoire) while in Cameroon the fact that ginning is totally integrated with oil extraction enables these conflicts to be avoided, with the risk that the under-evaluation of seedcotton will penalise the farmers.

4.2.11. Partial conclusion

191. The analyses and lessons that we have been able to derive from an approach via the qualitative considerations tend to confirm the advantage of this approach which enables us to:

- tackle legitimate questions relating to the sustainability of the cotton sectors,
- do this while keeping the goals of development in sight,

- obtain elements that throw light on the effects of the organisation modes on the observed performances.

192. It can be observed that, independently from the organisation modes in place, there are positive signs, which vary between the 6 countries, to attain the following objectives :

- Increase the income of the producers,
- Improve equity in terms of the distribution of cotton income among the producers,
- Prevent the harmful effects related to chemical use.

193. On the other hand, still with some variation between countries, the signs are negative for attaining the following objectives:

- Reduce risks,
- Guarantee the sustainable management of the cultivated areas,
- Strengthen competitiveness through an adaptation to the qualitative requirements of the users,
- Strengthen competitiveness by obtaining better prices (these last two objectives were penalised in our analysis by the lack of information transmitted).

194. In addition, there is a negative trend for the provision of public services.

195. The positive trends for the three objectives cited above arise (despite differences in the organisation mode regarding the principle of liberalisation) from

- Price administration,
- The continued provision of a service to make sure that chemical products are used properly,
- The refusal to discriminate between farmers through price differentiation.

196. Of course, achievements and prospects differ from country to country. The effects prove to be greater when the farmers' institutions are involved, taking a meaningful part in discussions concerning the steerage of the sectors, prices and beyond.

197. Coordination by the market alone is not found, even within the institutional frameworks that would have allowed it to do so. Prices are not adjusted according to transaction costs, for example those resulting from the remoteness of the farms. Yet this is what safeguards the positive trends in relation to a few of the important objectives. This contradicts the hypotheses or expectations that are the basis of restructuring policies of several countries in Africa.

198. Nevertheless, the identification of the insufficiencies regarding several other, equally important, objectives is a good demonstration that there is still much effort to be made for all the organisation modes in place.

4.3. Concordant and complementary results arising from the analysis by level of key factor

4.3.1. An approach towards a vision of the levels attained for key factors

199. The identification of qualitative considerations by relating them to the development goals on one hand, and by specifying the connection between proposed key factors and the identified qualitative considerations on the other, enables the key factors to be linked with the goals of development. The levels of the key factors (or capacities) thus provide an indication of the performance that will be obtained in the short term if the organisation mode is not modified. This indication arises from the evaluations given of qualitative considerations, through marks (1, 3, 5, and 7), and it is calculated automatically through the links between the Excel tools for marking the qualitative considerations and the constructed databases.

200. The levels of key factors necessary for achieving the goals of development can be presented either for all three general development goals combined, or for each target separately. The strategy of attributing marks to the qualitative appraisals was chosen in order to produce the graphs in form of 'spider webs' where the axes correspond to the 9 factors proposed. Four of such graphs can be produced for each country, corresponding to the 3 global goals of development, taken individually and globally.

201. Since the aim was to develop a tool by which each country could compare its performance to the others while the plot of 6 curves on a single graph is not easy to read, we chose to set each curve within the boundaries delimited by two curves – 'max' and 'min' - corresponding to 2 'virtual' countries obtained from the highest and lowest levels of performance, respectively, for all the key factors. These curves do not therefore correspond to the absolute maxima and minima, which are situated on the outside and the centre of the web, respectively. Countries are not compared specifically by this method, but rather they are situated in relation to the group, so that they work towards becoming the « class genius » or to avoid becoming the « class dunce ». According to the marking system adopted, the level improves towards the periphery of the 'web', becoming progressively poorer as the centre is approached.

4.3.2. Analysis of the gaps in levels of key factors

202. We have limited ourselves to the presentation of those graphs that correspond to all the development goals and to the goal of international competitiveness for the assessment of the 'max' and 'min' levels of the key factors and differences between them. Additional graphs can be found on the CD-ROM (chapters 5.5.6 to 5.5.10 of the general summary).

203. For all the objectives taken together, and for most of them taken individually, the 'max' levels do not merge with the periphery (grades of around 5 compared with an absolute maximum of 7), demonstrating that there would be room for improvement, even if one country were to have the same curve as the « class genius » (a situation which does not arise). 'max' levels are closest to the absolute maximum for the objective of contributing to poverty reduction.

204. For all of the goals combined, the differences between the 'max' and 'min' points are relatively constant and relatively small. This indicates that the differences between countries, in the present state of the organisation modes of their sectors, are not so great. But these differences can be bigger when the development goals are taken separately, as can be seen in the graph relating to competitiveness on the international market. This graph is also intentionally presented to illustrate how finely the considerations are graded, and how errors in evaluation can lead to surprising and questionable results: in graph 6 the 'max' level for increased productivity meets the absolute maximum. This is all the more surprising for the fact that this result comes from the grade attributed to Ghana. This suggests that the present evaluations must be discussed and reviewed in certain cases.

Figure 4. ‘max’ and ‘min’ levels for key factors of all development goals combined

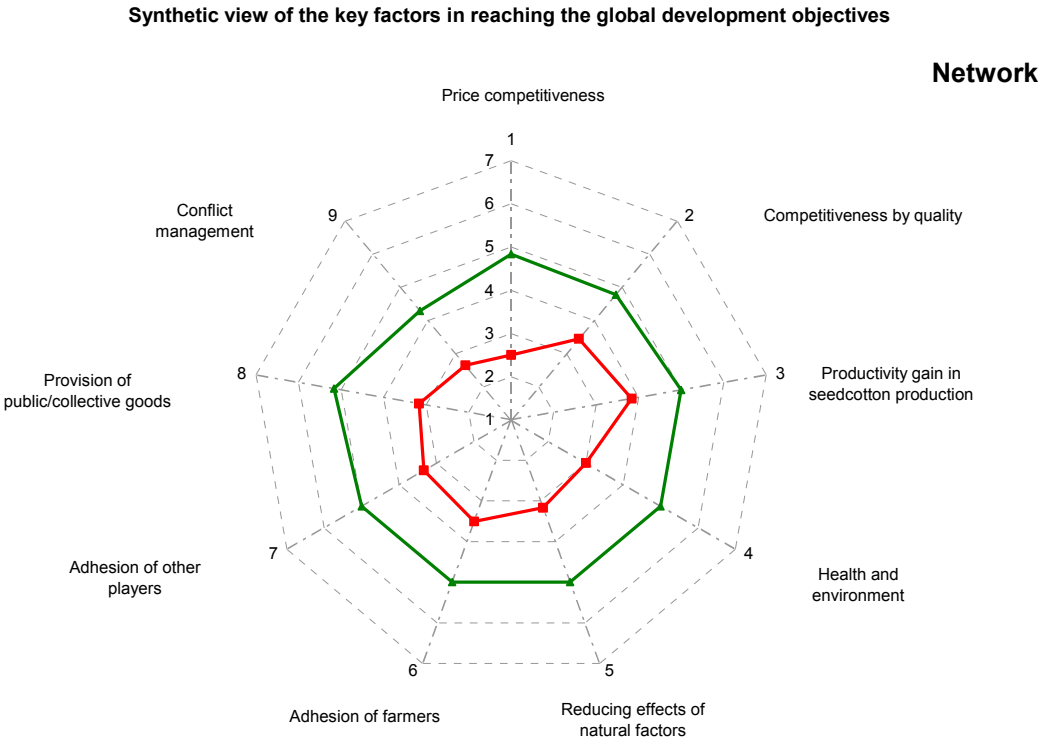


Figure 5. ‘max’ and ‘min’ levels for the target of poverty alleviation

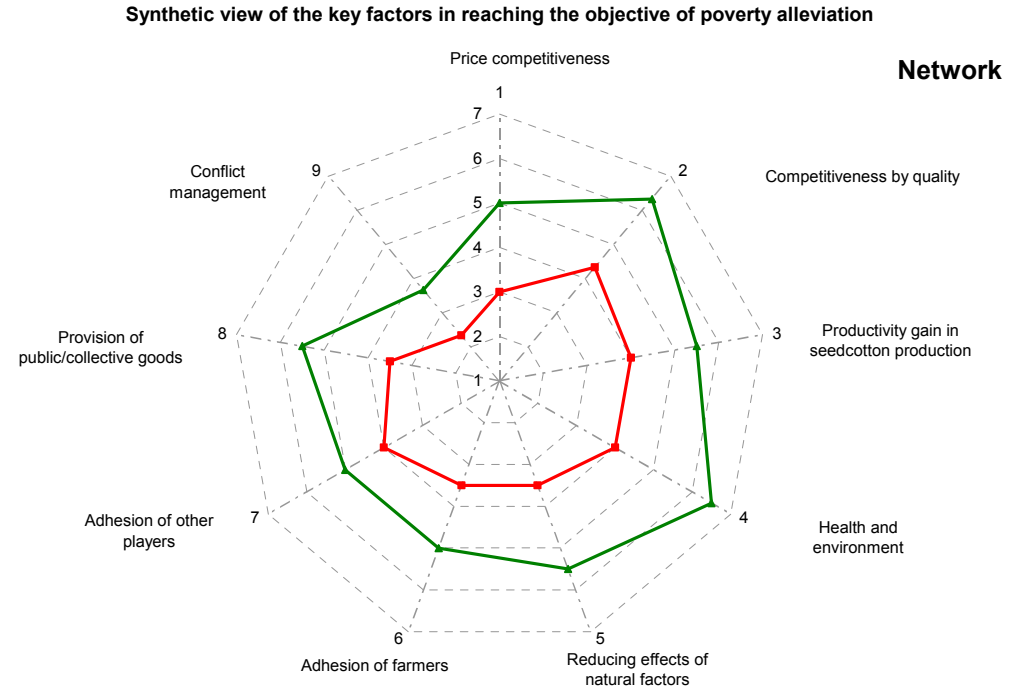
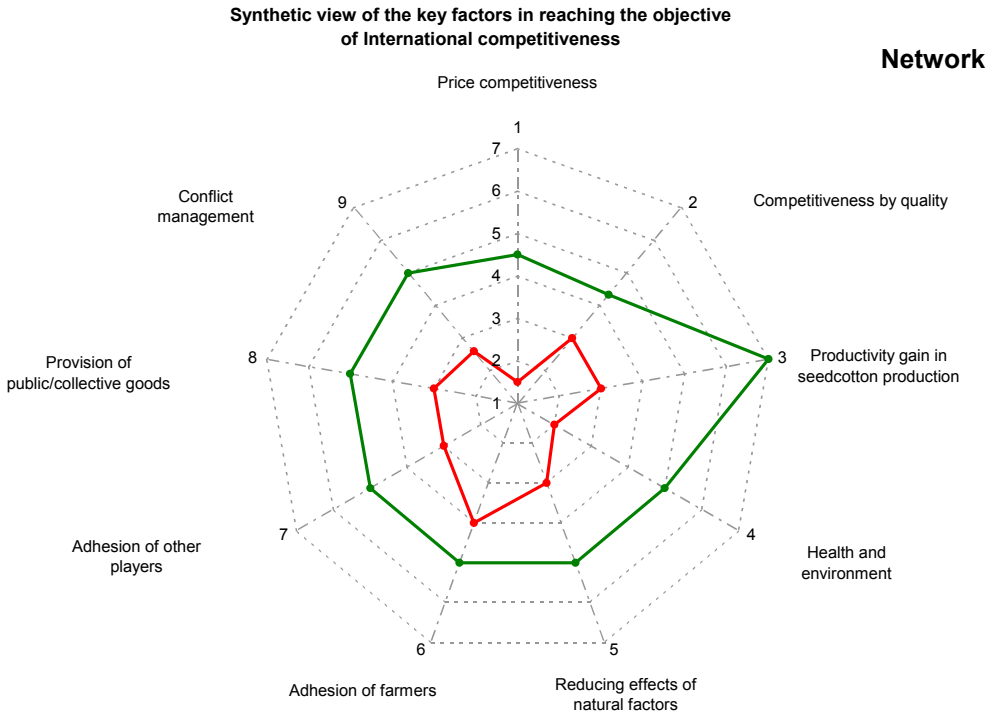


Figure 6. ‘max’ and ‘min’ levels for the target of international competitiveness



4.3.3. No outright champion among the countries

205. Given the large number of graphs produced to enable each country to situate itself in comparison to the ‘max’ and ‘min’ references, it is not possible to present all of them here and the interested reader is invited to find them in the CD-ROM (chapter 3.3 of the summaries dealing with the documents from individual countries).

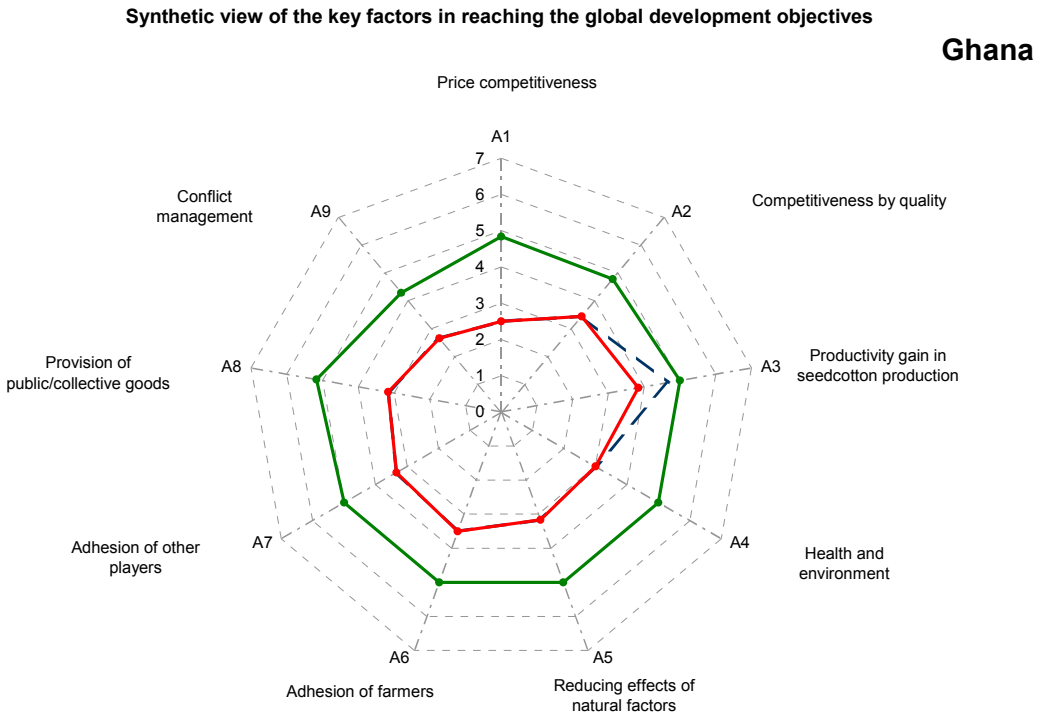
206. In the present report, we limit ourselves to the presentation of 3 graphs to emphasise that none of the countries can claim to be « top of the class ». Even though recent studies have given Burkina Faso the reputation of being efficient, and this is confirmed by the Résocot Project, this does not mean that it is top of the class in every way. In fact, Burkina Faso, Mali and Cameroon, and even Benin, attain levels that are close to the ‘max’, either for the same key factors, or different ones, and this whether the 3 objectives are taken together or considered separately. It should also be noted that, as shown in the graph for Benin, attaining a ‘max’ level for certain key factors does not exclude the possibility of obtaining the level ‘min’ for others. The graphs proposed here should help each of the countries, in the spirit of the Resocot Project, to situate itself and to decide what actions should be taken.

207. However, the results show that Ghana stands out with the lowest levels of key factors, whether all the goals of development are considered together or taken separately. Nonetheless, as mentioned above, the gaps between ‘max’ and ‘min’ levels are generally not very great, so the obtained results should not be taken as a sign that there is no future for cotton in Ghana.

Table 1. Countries obtaining maximum grades for the key factors according to development target

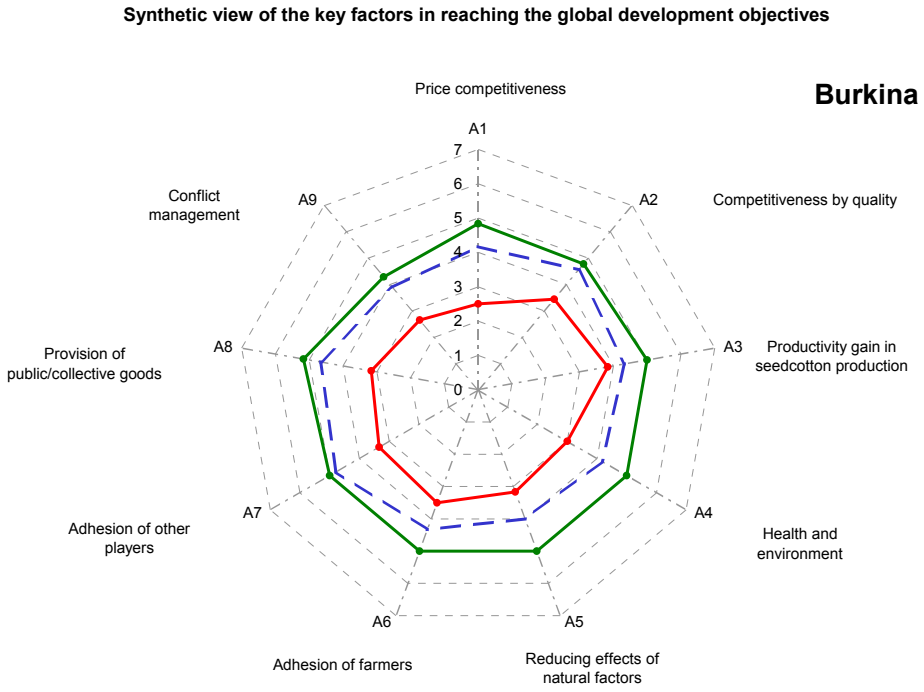
	Development goals concerned			
	All the goals	**Poverty alleviation**	**Sustainability**	**Competitiveness**
Capacity to adapt to market fluctuations through maintaining price competitiveness	Mali	Burkina, CI, Mali	Cameroon, Mali	Burkina, Mali
Capacity to resist market fluctuations through maintaining competitiveness in quality	Cameroon	Burkina	Benin, Cameroon, CI, Mali	Burkina, Cameroon
Capacity to raise productivity in seedcotton production	Cameroon, Mali	Benin	Cameroon, Mali	
Capacity to promote sustainable production that preserves human health and environment	Mali	Benin	Mali	Benin
Capacity to mitigate the effects of changing natural conditions	Mali	CI	Mali	Benin, Cameroon, CI, Mali
Capacity to maintain farmers' commitment to cotton production	Mali	Benin, Burkina, Cameroon,	Mali	Benin, Burkina, Cameroon, CI, Mali
Capacity to maintain the commitment of the other players to cotton production	Mali	Benin, Burkina, Mali	Burkina, Cameroon, CI, Mali	Cameroon, Mali
Capacity to provide public/collective goods or services	Mali	Mali	CI, Mali	Burkina, Cameroon, Mali
Capacity to avoid or to manage conflicts between cotton sector stakeholders	Cameroon	Cameroon	Cameroon	Burkina

Figure 7. Levels of capacities for all the development goals taken together for Ghana



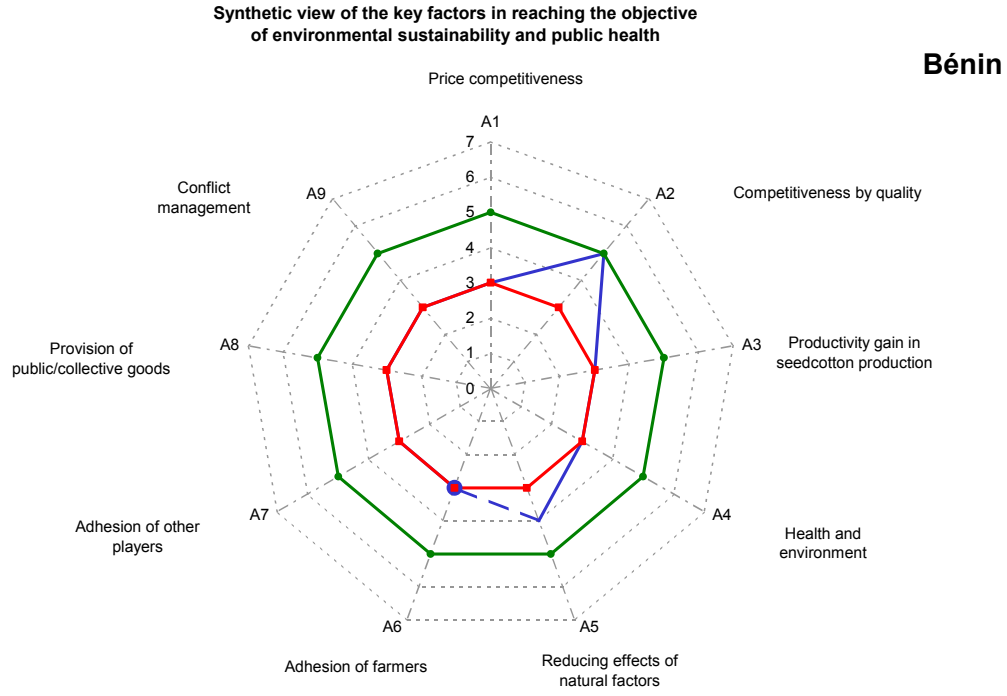
208.

Figure 8. Levels of capacity for all the objectives taken together, for Burkina Faso



209.

Figure 9. Levels of capacities for achieving the objective of environmental sustainability/public health, for Benin



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4.3.4. Effect of the levels of key factors on reaching the targets

211. The levels of the key factors are analysed in respect to how well the development goals are reached (partial objective of level 1), with attention drawn to differences between the francophone countries when these occur, in the knowledge that Ghana is most often distinguished by having lower levels, a particularity which we will not dwell upon. Details may be found in Appendix 4.

212. **In general, for all of the key factors, the levels attained are fairly often**

- **good** for the following objectives

- ‘increase cotton income of producers’,
- ‘improve equity in terms of the distribution of cotton income among the producers’
- ‘guarantee sustainability by the prevention of harmful effects related to the use of chemicals’,

⏩ while they are **rather poor** for

- "reduce risks",
- "improve the supply of public/collective goods or utilities",
- "strengthen competitiveness by reducing the costs of production and marketing lint"
- "strengthen competitiveness through an adaptation to the qualitative requirements of the users".

4.3.5. Effect of the qualitative considerations on the levels of the key factors

213. This effect is briefly analysed for each key factor by identifying the qualitative considerations whose contributions to the key factors are positive or negative. We do not dwell on those qualitative considerations that make average contributions. Since the impact of the organisation modes has been analysed already, this action leads on indirectly to emphasising the organisation mode on the levels of the key factors. The details can be found in Appendix 5.

214. For each of the key factors, some qualitative considerations contribute positively in all countries, whereas others contribute negatively in all countries. In other words, for all the countries involved in the Resocot Project, the first set of qualitative considerations should be conserved, and the second set improved. In the interest of brevity, we have not reported on the qualitative considerations that had average contributions in all the countries, but it may be useful to take these into account in order to improve their effect, or prevent this effect from deteriorating.

215. On the other hand, for all the key factors, we show that a considerable number of qualitative considerations contribute in different ways in the different countries. That is to say, these are the qualitative considerations that differentiate the countries for the levels of key factors, and that must be maintained or improved in order to maintain or improve the level of performance.

216. The following table indicates the number of qualitative considerations as a function of their effect on the level of the key factors. A significant number of qualitative considerations are highlighted whose effects differed between countries, for each key factor. These qualitative considerations may thus point the way for countries hoping to improve their performance, by indicating how other countries arrive at better results for the key factors.

217. The procedure is best illustrated by working through an example. For the fey factor ‘capacity to adapt to market fluctuations through maintaining price competitiveness’, we show that several of the qualitative considerations contribute differently in the different countries, of which ‘Do farmers participate more in the mechanisms that determine their cotton income’ whose contribution is very positive in Benin and Côte d’Ivoire, whereas it is inadequate, or very inadequate in the other countries. It is in the interest of the latter countries to find out what makes the difference in the other two. The preceding analysis of the effect of the mode of organisation on the appraisal of the qualitative considerations put the accent on the importance of implementing measures by which the inter-professional discussions and steering mechanisms are made effective, but this needs a certain amount of time for getting the farmers organised.

Table 2. Number of qualitative considerations as a function of their effects on the key factors.

Key factor	Negative effect	Positive effect	Average effect	Variable effect	Total
Capacity to adapt to market fluctuations through maintaining price competitiveness	6	2	4	4	**16**
Capacity to resist market fluctuations through maintaining competitiveness in quality	2	3	3	3	**11**
Capacity to raise productivity in seedcotton production	2	4	5	7	**18**
Capacity to promote sustainable production that preserves human health and environment	1	3	6	4	**14**
Capacity to mitigate the effects of changing natural conditions	3	3	3	2	**11**
Capacity to maintain farmers' commitment to cotton production	5	6	10	9	**30**
Capacity to maintain the commitment of the other players to cotton production	2	2	6		**10**
Capacity to provide public/collective goods or services	1	1	9	1	**12**
Capacity to avoid or to manage conflicts between cotton sector stakeholders	4	3	8	5	**20**

5 VARIOUS MANAGEMENT OF COORDINATION FAILURES AND MARGIN OF PROGRESS FOR PERFORMANCE

5.1. Approach taken for comparing the countries

218. The execution of the Resocot Project relied on a strong hypothesis in which it is considered that **the performance obtained reveals the importance of failures of coordination.** In a sector with no prevalence of coordination failures, performance would be optimal, and where performance is not optimal this indicates that coordination failures actually prevail and impact negatively.

219. To show that coordination failures exist in the cotton sectors of the countries studied, **the fact that the indicators of performance are not at optimal level confirms the reality of coordination failures**, and is **a warning against any restructuring of the sectors that does not take this into account**. But since the aim is to find practical solutions, it is not enough to know that coordination failures exist, but to identify these failures and to find out how they may be overcome. This is the objective that justifies the present analysis to: a) link the performance indicators to potential coordination failures and b) then examine the performance indicators to trace the origins of those failures that did indeed happen. In the analytical approach taken, care was taken to distinguish the potential failures that were more specific to coordination by the State and those that were more specific to coordination by the market.

220. In practice, an indicator with a low mark shows that failure weighed heavily on it, which is correspondingly assessed by a mark 7. Conversely, a very positive indicator, with a mark 7, shows that there is virtually no coordination failure that impacts on it, so the corresponding failure rating takes the minimum mark of 1. In reality, several indicators may point do the same coordination failure. For this reason the mark of a coordination failure, from a qualitative and relative evaluation, result from the combined marks (means) of the corresponding indicators. The same coordination failure may also apply to several technical stages of the cotton sectors and the combination of corresponding indicators may differ from one stage to another. In brief**, any statement on the coordination failure in this case would be imprecise – the technical stage and the development target concerned also need to be specified.** Thus, a coordination failure can be termed as 'the absence of an effective policy on

competition[4]' in general, or for a specific technical stage if it is only valid for that stage.

221. It was possible to evaluate the indicators of performance based on the data collected by the teams of the South, and we now turn our attention to the lessons that these indicators give concerning the coordination failures being detected. Before proceeding further, it should be remembered that it was hard to access certain information, and data collection suffered in consequence, so that certain pertinent information could not be obtained. This situation affects how the coordination failures are assessed, since it had been decided that a missing indicator should be rated negatively (by giving it the mark of 1.4, so distinguishing it from mark 1 but giving it the equivalent value in the construction of the figures). This way of operating implies that a strong influence of coordination failure may be indicated due to the absence of pertinent information, although this is not necessarily the case. We have seen that, even when the information was obtained, it may be incorrectly evaluated (by a single actor), and this is passed on to the evaluation of the weakness in coordination. We have ourselves noted that marking was not always coherent. For this reason, the discussion developed below on coordination failures should be **considered bearing in mind that there are some reservations about how well the performance indicators were evaluated**.

222. The marks given to coordination failures and the tables on the failures identified by key factor and by development goal may be found in chapters 4.4 and 4.5 of the country summaries on the CD-ROM. Tables presenting regional summaries of the data (in which the data from all the countries are combined) may be found in the general report of the CD-ROM, from chapter 7.9 onwards. These tables are formed by identifying, for each key factor and each development target, weaknesses in coordination which have the potential to affect them. The advantage of the tables in the CD-ROM is that they provide a general view, but because of this, they are not very helpful when it comes to answering specific questions relating to the real influence of the coordination failures and how this influence varies according to the modes of organisation encountered.

223. This explains why an additional examination of the results was needed (not included in the CD-ROM), leading to:

- A large table of mean values for coordination weaknesses for all the potential weaknesses related to the development targets. This is the table from which the marks reproduced in the CD-ROM were drawn, as mentioned above.
- A document presenting the marks for coordination failures for all 6 countries for the development goal (partial objective level 1), the technical stage, the type of coordination weakness (market or State) and the associated indicators of performance. This document was put together using the databases constituted by the Project, and makes it possible to trace back to the original data in order to understand how any particular value for coordination failures was formed (this being derived from several indicators), i.e. to the marks in the table indicated in the preceding paragraph.

224. An enormous amount of information has been obtained and, at this stage, is not conceivable to fully exploit of all the lessons contained within it. We have chosen to restrict the exploitation in order to provide the essentials in the present debate on the restructuring of the cotton sectors.

225. The debate has moved on from antagonism between coordination exclusively by the State or the market towards a balance which must be found between these two forms

[4] Such a failure pertains to the inefficiency of the State to set up an economic framework favourable to the competition between private operators to provide private goods or services.

of coordination or towards the right dose of regulation. This evolution stems from the recognition that failures exist in both forms of coordination (we will deal with coordination failure of market type vs of State type). The market is not good at managing public /common goods and it can also create defects, due to economies of scale for example, which may lead on to situations of natural monopoly. On the other hand, coordination by the State is subject to the risks of rent-seeking or of wastefulness which are sources of inefficiency. From these angles, it seems that, more coordination failures of the market type should be found in the organisation modes oriented by liberalisation and more coordination failures of the State type in the organisation modes of organisation oriented by the monopoly.

226. From another point of view, by recognising that certain amount of regulation is necessary and that this regulation calls on the State, which may or may not respond, coordination failure of the State type may equally arise in the organisation modes oriented by liberalisation, particularly concerning the management of public/common goods. In addition, since none of the organisation modes are subjected exclusively to coordination by the State, i.e. that coordination by the market can come into play even in the modes of coordination non-oriented by liberalisation, the hypothesis that coordination failures of the market type exist cannot by excluded. The relative importance of failures due to these two types of coordination appears in reality more variable and their distribution may be less Manichean than what is generally thought.

227. In order to bring the rudiments of a response to the questions posed at the start of the Resocot Project, we have composed tables (Appendix 6) for each of the development goals (partial objective level 1), giving the number of countries (classified according to the orientation of mode of organisation of their cotton sectors) in which there were judged to have been actually submitted to coordination failure or not (level 4 was taken as the threshold above which it was judged that failure had occurred). We placed Ghana in the category of the mode of coordination oriented by liberalisation and the other 5 countries in the other category. The number of countries in this second category means that the differences observed between them may be discussed. This, unfortunately, is not the case for the first category, in which there is only one country.

228. The following example is presented to help explain our approach and to follow the lessons drawn from it.

229. This table refers to the precise objective of «Strengthening competitiveness by obtaining better prices in the local sale or in the export of cottonseed ». The sum of all the figures on each line is 6 because there are 6 countries in the Resocot Project. Thus, the figure 2 on the first line indicates that in 2 countries with a mode of organisation orientated towards monopoly, the failure « production inefficiency in the search for buyers of cotton lint or cottonseed", pertaining to coordination by the State, was not established the technical process "local sale of cottonseed". The figure 3 next to this signifies that this failure was established in three countries, as well in the sole country oriented by liberalisation.

Table 3. Number of countries with failures being established or not established with regard to a precise objective of development.

NB Pays						
			Monopoly oriented		Orientation libéralisation	
Technical process	Failure type	Failure	Fail. Established	Fail. Not-establ.	Fail. Established	Fail. Not-establ.
CottonSeed local Purchase	State	Ineffectiveness in the search of buyers for cotton lint or cottonseeds	2	3		1
	Market	Oligopoly of the cotton lint or cottonseeds traders	2	3		1
Cottonseed export purchase	State	Ineffectiveness in the search of buyers for cotton lint or cottonseeds	3	2		1
	Market	Oligopoly of the cotton lint or cottonseeds traders	1	4	1	

230.

231. Some useful conclusions can be drawn from these tables, but few words or concepts must be clarified. In the area of analysing the running of commodity channels or sectors, many research works deal with the concepts of regulation, competition and coordination with more or less extended scope and which can overlap. Regulation usually calls for actions from the State, but this is not always necessary since there is also reference to private-regulation and self-regulation. Other research works oppose competition to coordination, considering competition as rules related to the normal functioning of the market and coordination as rules resulting from private agreement between players, what can be called also collective rules, and which has connection with what other people called private regulation. It comes out clearly that terminology is not definite and there are some variation in the way authors use the same words. In the Resocot Project, we consider that coordination could derive from three types of actions : actions from the State, from the running of the market and collective rules. Each type of coordination actions could be subjected to failure and could be corrected or controled by actions of other types if not of the same type. This observation has lead us to deal with "coordination failure by the State (or of the State type)" and "coordination failure by the market (or of the market type)".

5.2. No iron rule on coordination failure

5.2.1. Few potential coordination failures are not actually established

232. **Very few of the potential failures identified were not found to be not established.** These include[5],

- In the field of failures related to coordination by the State :
  - Ineffective quality control and certification of inputs,
  - Production inefficacy in the negotiation of contracts,
  - Production inefficacy in the packaging of inputs,
  - Monopsony buying price for seedcotton,
  - Lack of resources for buying seedcotton,
  - Rent-seeking in the quality grading of seedcotton,
- And in the field of failures of coordination by the market :

[5] but the headings of coordination failures ought to be cited relative to the development objectices concerned by them; we have chosen otherwise for reasons of brevity, except for a few specific cases

- Agreements between seedcotton buyers (this is astonishing, whereas in Ghana there seems to be agreement, this case illustrates a certain degree of sensitivity to flaws in the way the indicators were evaluated.

233. Possible explanations as to how these failures were avoided may be found in the processes of calls for tender with strict terms and conditions and the processes for including the farmers in deciding prices. This point will be further elaborated.

5.2.2. Rare, but highly informative, cases of coordination failure occurring in all countries

234. The other potential failings identified (and they form a long list), were found established in at least one of the 6 countries. **It is, however, extremely rare for a failure to happen in all the countries at the same time. These rare common failings are all in the field of coordination by the market**:

- The common-good nature of technical know-how on cotton cultivation,
- The common-good nature of the arable reserve,
- The absence of market for arable land,
- The imperfect market for information (on quantities produced and available),
- The imperfect market of insurance,
- The oligopoly feature of customs clearing operators at harbour.

235. The fact that coordination failures of the market type also appear in the countries whose sectors are not coordinated by market liberalisation signifies that these failings have not been corrected by State action or collective rules.

236. **Conversely, the fact that no coordination failures of the State type were common to all countries signifies that they may be corrected by collective rules or by the market.**

237. There were no coordination failures of the State type being found established all the countries whose organisation mode was not oriented by liberalisation, but not established in the country with the other type of organisation : this signifies that **there were no failures of coordination by the State that the market can correct better than collective rules**.

238. On the other hand, the opposite is also true, that is, that **regulation by the State or by actions of the sector enabled several failures to be avoided in all the countries**,

⏩ These are, in the field of coordination failures of the State type:

- Difficulties in evaluating the characteristics of fertilisers and pesticides,
- Absence of a market of arable land (relating to the objective of guaranteeing sustainable management of cultivated areas),
- Sale of seedcotton at the price set by the monopsony (regarding the objective of increasing competitiveness through the reduction of production and marketing costs of lint)
- Ineffective protection of arable areas,

⏩ And in the field of coordination failures of the market type:

- imperfect financial markets,
- oligopoly of input suppliers,
- oligopoly of buyers of seedcotton in unregulated competition.

5.2.3. *Fatality of some coordination failures of the market type*

239. Our results show that the coordination failures of the State type are not inevitable, but that some coordination failures of the market type may be inevitable, they all pertain to the common-good nature of the goods or services to be provided or the national or international macroeconomic environments. Put another way, all the sectors with organisation modes that are not liberalisation-oriented are not subjected to the same coordination failures by the State, or to the same levels of these failures, because of the actions they have undertaken.

5.2.4. *Importance of collective rules to prevent from occurrence of coordination failures*

240. We have already described the elements of coordination that several sectors have put in place in these different fields, in the paragraphs dealing with the description of how the sectors are organised and in the analysis of the effects of mode of organisation on performance.

241. Appendix 7 presents the actions we identify for having contributed to control coordination failures from occurring. These actions are classified as regulations from the State, as reactions from the market and collective rules resulting from collective actions. The following table shows that collective rules prevail mainly in preventing potential coordination failures from occurring actually. These collective rules pertains to those that the cotton sector stakeholders achieve to set up.

Table 4. Number of actions identified to have prevent coordination failures from occurring, according to the type of failures involved

	Actions by the State	**Collective rules or actions**	**Reactions from the market**
Coordination Failures of the State	15	53	17
Coordination Failures of the	4	60	11

242. Analysis of the collective rules actually involved leads to observe that they correspond to functioning modes that have been long acknowledged to be specific in many francophone countries :

- Information collection on the farmers' needs in inputs by involving farmers' organisation
- joint liability in input credit provision
- Integration of supplier credit as a specification inserted to call for tenders
- Integration of research and extension financing within the price mechanism seedcotton purchase
- Integration of the rural track maintenance within the price mechanism of seedcotton purchase …

243. These specificities are commonly recognized of contributing to the positive achievements of the francophone countries. It is sound to find them back as actions to overcome potential coordination failures. This is a sign of the relevance of the methodology followed. It implies also that improvement of performance must derive from additional actions to help overcome established coordination failures.

244. It may seem strange that some actions by the State could help correct or prevent coordination failures by the State. In reality, activities within a cotton sector are inter-connected. A State failure in terms of lack of financial means to take charge of the

maintenance of rural tracks could be corrected by the regulation of integrating such maintenance costs within the seedcotton price fixing mechanism.

245. It is noteworthy that market reactions may contribute from occurrence of potential coordination failures. Detailed analysis of the Appendix 7 enables to realize that they pertain to reactions from international markets which compensate imperfections of national markets. They are observed in the francophone countries where the scope of business proposed (in terms of volumes of demand or volumes of output) becomes attractive to international players to come in.

5.2.5. Higher frequency of occurrence for coordination failures of the market type

246. To find out how often coordination failures occurred, we chose to consider that such a failure had occurred when it was found in at least 3 of the 5 countries with the mode of organisation non-oriented by liberalisation. The question is also pertinent in countries with modes of organisation oriented by liberalisation, but results would be only indicative since with they derive from a single country.

247. This procedure enabled us to extract the following table on the failures encountered within the two types of coordination. This table indicates that, for the group of countries with the mode of organisation non-oriented by liberalisation, a significantly higher rate of occurrence was found for failures related to coordination by the market (49% against 29%). The fact that failures related to coordination by the market were found in this group of countries is not totally surprising, since coordination is not exclusively by the State in these countries.

248. The difference in frequency between these two types of failure suggests that potential failures of the State type are controlled better in the countries with modes of organisation non-oriented by liberalisation.

Table 5. Greater frequency of occurrence of coordination failures of the market type (all the technical stages taken into account)

249.

Did failure occur ?	Monopoly Orientation		Liberalisation Orientation	
	Failure type		Failure type	
	State	Market	State	Market
Yes	31	61	65	105
No	75	71	41	27
Total	106	132	106	132

250. Even though the results concerning the case of countries (the unique country of Ghana) with a organisation mode oriented by liberalisation must used prudently, it should be stressed that both types of coordination failure are encountered and also that the frequency of occurrence is higher for the coordination failure of the market type. Moreover, the degree of occurrence is far higher than for the other group of countries. This result suggests that a organisation mode directed by liberalisation is indeed subjected to coordination failures of the market type that public action cannot mitigate and that these actions are also more subjected to the coordination failures of the State type.

251. For a more accurate analysis, it is necessary to centre on the technical stages that are more specifically affected by the non-liberal character of the organisation modes that are not directed by liberalisation. These stages concern:

- technical advice (extension, technical message dissemination)
- input distribution
- commercialisation of seedcotton,

- transport of seedcotton
- ginning
- classification of cotton lint,

252. The following table obtained confirms the former results. For the organisation modes non-oriented by liberalisation, frequency of occurrence is lower for the coordination failures of the State type as compared to the failures of the market type (17% vs 31%). These frequencies are also lower than those obtained in the unique country of the opposite organisation mode (29% and 46% for the types of coordination failures)

Table 6. Greater frequency of market failures in the stages that are more concerned by the monopoly system

Did failure occur ?	Monopoly Orientation		Liberalisation Orientation	
	Failure type		Failure type	
	State	Market	State	Market
Yes	8	17	24	42
No	40	37	24	12
Total	48	54	48	54

253.

5.2.6. Over-estimation of the frequency of occurrence of coordination failures

254. To proceed further, the nature of each of these failures, whether or not they did indeed occur, would need to be addressed. We reported yet the results regarding the coordination failures that were not established and we identified the actions that helped prevent them to come real.

255. For the coordination failures found to have been established, related listing is reported in Appendix 8. Examination of this listing leads to observe some inaccuracy with some failures being revealed wrongly. This lack of accuracy is not astonishing owing to the approach followed to reveal occurrence of coordination failures. This approach is based on performance indicators and their qualitative assessment by giving marks which are sensitive to the fact that information may miss. A coordination failure may then be found established wrongly as a result of missing information

256. We do not think that the relevance of the approach followed is not questioned by the pitfall we point out here since it would be overcome by better information obtaining. Nevertheless, frequencies of occurrence of coordination failures we calculate are over-esitmated. Under the current circumstances, the approach followed is robust to ascertain coordination failures which did not occur and less for those which are found established.

257. The pitfall we point out leads also to wonder whether the difference in occurrence between the two types of coordination failures is not over-estimated too. In order to have piece of answer, we made calculations by modifying the threshold in asserting that a coordination failure has a tendency to come established (passing to 4 countries out of the 5, instead of 3). This is a way of escaping somewhat from the bias introduced by the lack of information although it does not protect against the case where the same information is missing in the 5 countries concerned (cases actually encountered). We come to the two following tables which are similar to the previous ones and in which only figures have changed for the organisation modes non-oriented by liberalisation. The number of failures revealed as having occurred is greatly reduced with the new threshold retained, at a greater extent than the few cases of inconsistency indicated in Appendix 8: our approach to evaluate the degree of over-estimation of failure occurrence is then not very satisfactory.

258. With in mind the reservation mentioned above, the occurrence remains more frequent (but with a reduced gap) for the coordination failures of the market type when all technical stages are taken into account, but this difference vanishes when are only considered the technical stages most affected by liberalisation. We do not think that lack of information affected less these stages so that wholly speaking we still think that there is a greater occurrence of the coordination failures of the market type.

Table 7. Slightly greater occurrence of the coordination failures of the market type (all technical stages, threshold of 4 countries out of 5)

Did failure occur ?	Monopoly Orientation		Liberalisation Orientation	
	Failure type		Failure type	
	State	Market	State	Market
Yes	15	28	65	105
No	91	104	41	27
Total	106	132	106	132

Table 8. Non difference in coordination failure occurrence (selective technical stages, threshold of 4 countries out of 5)

Did failure occur ?	Monopoly Orientation		Liberalisation Orientation	
	Failure type		Failure type	
	State	Market	State	Market
Yes	5	6	24	42
No	43	48	24	12
Total	48	54	48	54

5.3. Performance: Margin for progress

259. In defining the key factors of performance and evaluating the levels reached for these factors with respect to the development goals (partial objectives of level 1), the notion of margin for progress appears. This notion is rendered even clearer in the graphic representation chosen: since the periphery of the web corresponds to the maximal performance, the distance between the curve of a country and this periphery represents the margin for progress.

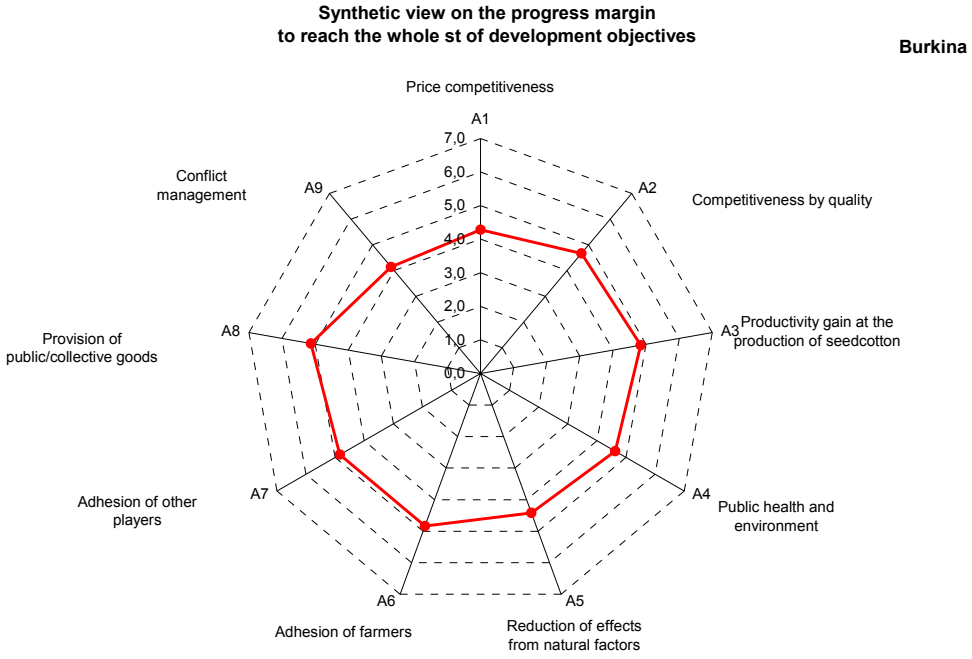
260. This margin illustrated on the web is only the potential margin. It is impacted by the occurrence of coordination failures associated, , and so will be influenced by the actions taken to correct or overcome these failures. In the short term, it is not realistic to consider that these coordination failures can be successfully overcome, either for each failure in its entirety, or for all the failures involved. For this reason, it seemed useful to evaluate realistic margins that took into account the failures involved.

261. A rigorous method would be to examine each of the failures and assess the degree of difficulty to be overcome, but this is very complicated, so we chose a simpler method which seemed good enough to show up the notion of difference between the potential and realistic margins for progress. To do this, we made the hypothesis that a failure is all the more difficult to overcome in the short term if it weighs heavily (with a mark of strong difficulty, i.e. 5 to 7). In this case it is sufficient to weight the levels of key factors based on the corresponding average marks of failure difficulty. The effect of this weighting is to deduce the curves of the realistic margins of progress from those of the levels of capacity, which are established for a global target of development or for

all of these global goals together. The end result is that the realistic margin is smaller than the potential margin[6].

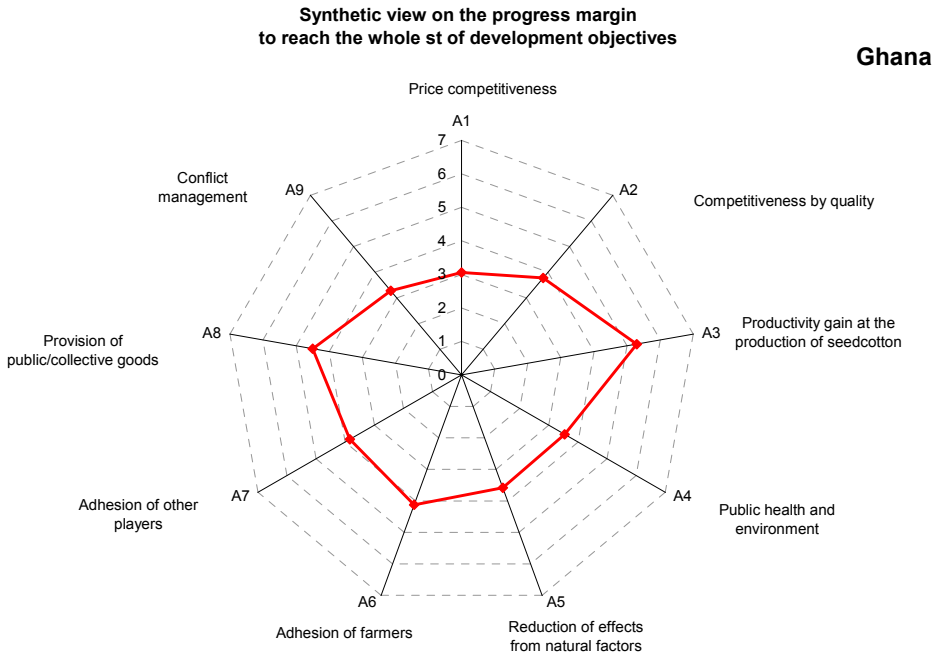
262. Below we present the realistic margins for progress for the three countries (Benin, Burkina Faso and Ghana) for which we have produced the capacity (or key factor) curves. To understand these curves, it should be remembered that margins decrease as they approach the periphery. Thus, it is found that the curves related to capacity levels are closer to the periphery.

Figure 10. Realistic margins of progress for performance in Burkina Faso for all development goals



263.

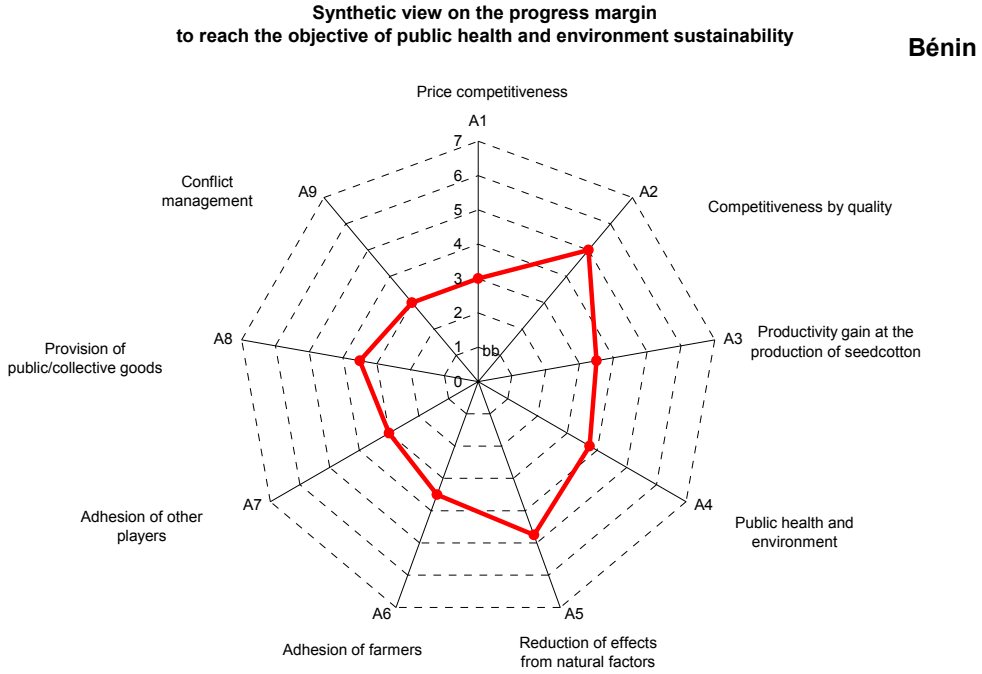
Figure 11. Realistic margins of progress for performance in Ghana for all development goals



264.

[6] For simplicity, we have chosen to weight the grades for the factor levels by adding 0, 0.5, 1 et 1.5 respectively to the grades of failure corresponding to 1,3,5 and 7. This is way of weighting is arbitrary, others could be used.

Figure 12. Realistic margins of progress for performance in Benin for the objective of environmental sustainability/public health



265.

266. In general, the margins are still small, either because the level of capacity is already good, leaving little room for improvement, or because the level of capacity is poor and there are difficult failures to overcome. In practical terms, the stakeholders in the sector can decide to concentrate on finding possible actions in the fields where the margins for progress are big. On the graph for the goal of environment sustainability/public health in Benin, all the margins are large, except for factors A2 and A5 (competitiveness through quality, reduction of the effects of changes in natural factors.

6 CONCLUSION

6.1. Methods and materials developed relating to the chosen theoretical basis

267. **The Résocot Project is an attempt to fully exploit a specific theoretical basis and to assess the performance of the cotton sectors with respect to development goals.** The initial choice of the neo-institutional theory sets this project apart from numerous other studies founded more or less implicitly on neo-classical theory, which tends to mask the effects of coordination failures. These failures do exist however, and are a burden to the cotton sectors: the Résocot Project has helped to reveal them. The approach that consists in relating performance to the development goals also distinguishes this project from the usual way in which performance is mentioned without explicit points of reference.

268. The first step in the exploitation of neo-institutional theory consists in **developing a detailed methodology** whose output corresponds to

- a proposed description of the sectors under 5 headings (stakeholders and competition regime, horizontal coordination, vertical coordination, price formation and terms of transactions),
- the decomposition of the global development goals into partial objectives that are more practical and that can be achieved in the short-term,
- the identification of potential coordination failures,
- the deduction of pertinent indicators of performance pertaining to the objectives of development.

269. **We believe this methodology to be applicable to other commodity chains,** with the necessary adjustments to integrate the specificities of the sectors concerned, **but several aspects remain to be improved**:

- by amending the list of development objectives (making this list more precise by developing the question of gender and development, human development, and the sustainable exploitation of natural resources for example),
- by clarifying the approach to retain partial objectives for which it is possible to obtain data (should those partial objectives for which it is known that the data is unobtainable be excluded, or kept anyway?)
- by integrating coordination through collective actions to complete the definition of performance indicators. This would make it possible to integrate variables related to organisation of the sectors as performance indicators.

270. The methodology developed was also used for proposing **a way of obtaining global visions**, by from a large amount of information, through :

- a qualitative and relative evaluation of performance,
- qualitative considerations for defining the effect of the organisation modes of the sectors on the performance,
- the identification of 9 key factors of performance, which could be applied to other commodity chains.

271. This application also **required that new computing materials be developed** in order to facilitate the exploitation of the data collected, the use of which needed to be simple enough as to be accessible to the national participants **without the requirement of onerous training**. These tools include :

- A set of working databases, at national and regional levels,
- Spreadsheets for producing global views,

- Interfaces for referring back to the original data contributing to the obtained global vision,
- Figures illustrating the position of countries relative to the network.

272. The use of the methods and materials developed by the project also led to **several useful and informative products** for helping to adjust the restructuring process of the sectors. These are:

- A description of the 6, rather different, sectors, according to their organisation modes on **a common grid**.
- **A representation of the performance of the sectors,** giving information on the state of performance in reference to the development goals**. These representations are not perfect however,** because some data was missing (data to which the national teams were denied access) and **the limits of a qualitative assessment by a singe actor** (research) while this type of appreciation must be carried out collectively by all the stakeholders. At a later stage, **when all the actors of the sector are associated in the application of these methods and materials, i**t may be possible **to list the numerous identified variables in order of importance** and weight them according to recommendations made by the stakeholders.
- **Each country has a tool by which it can situate itself in relation to the group of countries,** in terms of present performance and the prospects for performance in the short term if the organisation mode of its cotton sector stays the same or if this mode should be adjusted **(notion of margin of progress linked to changes in the organisation mode).** On the practical side, each country can identify the qualitative considerations, or more generally, the key factors of performance, that contribute positively or negatively to the development goals. The possibility also exists to find out which qualitative considerations make the difference between the performance of different countries, to trace back to the elements of the organisation mode that influence these qualitative considerations and to derive inspiration from them to adjust its cotton sector.

273. Despite the fact that this exploitation of the mass of results is neither exhaustive nor definitive, lessons have been drawn from them in several areas.

6.2. Organisation modes: an abundance of changes and adjustments

274. **Concerning the organisation mode,** we stress that

- There is **no exclusive recourse to coordination by the market** in the country (Ghana) that liberalised its sector nearly fifteen years ago (to turn from it in the past 2 seasons). As an example, **price competition between the ginners in liberalised systems is illusory**. The formation of prices directly affecting the farmers (input prices and selling price of seedcotton) under the liberalised system has very quickly become very similar to that observed in monopoly systems. It also arises from a price administration that is entirely private, and the participation of the farmers without institutional representation or associative rights is essentially symbolic.
- On the other hand, monopoly systems are not rigid and the great diversity observed in the 5 countries concerned is shown in
  - the terms and conditions of transactions (for the transfer of input credit to the banks for example)
  - price formation (in supply to the local textile industry for example)

- and the actions of horizontal coordination (concerning measures for managing public resources for example) and in particular the power to take decisions obtained by the farmers' institutions in certain countries.

275. Within the systems of monopoly, there may be some recourse to competition, but only in specific ways.

276. **The diverse ways in which the organisation modes non-oriented by liberalisation function,** of which we have presented a general idea**, testify to their rich potential for evolving differently, a potential that is too often overlooked.**

277. Overall, no system is totally liberal and no system is a total monopoly; in practice only adjustments to these systems exist. It would be futile and perverse to continue to discuss these extreme systems of coordination by the market or the State. It is far more important to look for the type of orientation (liberalisation or monopoly) favourable to the factors that will usher in greater economic, social and environmental sustainability to the cotton sectors.

278. **We find that one of these factors is the effective participation of the farmers' institutions in the decisions,** as observed in certain countries where the organisation mode is not oriented by liberalisation. It should be emphasised that the participation sought is a product of long-term bi-lateral relations between different types of actor on one hand and between actors of the same type on the other. Such conditions do not apparently flow from the principle of liberalisation, which pushes farmers to sell to the highest bidder and change commercial partner from year to year.

6.3. The advantage of appraising performance related to the development goals

279. For the appraisal of the cotton sectors' performance, **the Resocot Project took the original choice of breaking down the overall performance into partial performances**. This partial approach is done on two levels, the first referring performance to 3 global development goals, and the second referring to the partial objectives that constitute these global goals. This approach creates the possibility of moving away from a vague discourse on performance or general reference to development goals, to situate performance at the level of stated objectives that are less general and distant.

280. Among the countries of the Resocot Project, **there is no « class genius »** who manages to attain maximal performance for all the partial objectives. Certain countries manage to collect the best performances for several partial objectives, but rarely do two countries excel for the same partial objectives. This result indicates that, in practical terms, the countries can take inspiration from each other in order to reduce the gaps in performance between them. There is not really a "bottom of the class", although Ghana does attract attention with its levels of performance that are often the same as the observed minima.

281. For each of the global goals of development, we see that the achievement of maximal performance levels for some objectives does not prevent a country from suffering from minimal levels of performance for others. **This may indicate that certain partial objectives were given priority, and that this has a negative impact on others**. It follows that **there is a balance between the partial objectives**.

282. With the evolution towards a more collective, inter-professional, management of the sectors, the possibility arises to **aim for a negotiated balance**. We believe that the initial results of the Resocot Project are useful in making decisions on the composition of groups of objectives, or even to put them in order of importance for achieving a balance that is acceptable to all stakeholders.

6.4. Operational consequences of using qualitative considerations and key factors of performance

283. **Concerning the effect of the organisation modes on the extent to which a development objective is attained, we proceeded by analysing the identified qualitative considerations and the key factors of performance associated with them.** This enabled us to see that, **independently of the organisation modes in place, there are positive signs,** with variations between the 6 countries, for attaining the following objectives **:**

- increase cotton income of the producers,
- improve equity in terms of distribution of cotton income among the producers,
- reduce the harmful effects related to the utilisation of chemical products.

284. In contrast, still with some variation among countries, the signs that the following objectives are being achieved are negative:

- reduce risk,
- guarantee a sustainable management of the cultivated areas,
- strengthen competitiveness through an adaptation to the qualitative requirements of the users,
- strengthen competitiveness by the obtaining of better prices (this and the preceding objective suffered from a lack of communicated information)

285. The positive direction taken for the three objectives cited above, regardless of the organisation mode, comes from

- price administration,
- the maintenance of a service to oversee the correct use of chemicals,
- the refusal to discriminate between smallholders through price differentiation.

286. Of course, differences are found between countries with respect to their achievements and prospects. Some qualitative considerations contribute positively to the levels of key factors in all the countries, other qualitative considerations contribute negatively, and still others have different effects in different countries. On the practical level of how to improve performance, the first should be consolidated, the second should be improved, and is by studying the latter groups that inspiration may be gained from the countries where they have a positive impact.

287. We have found that **the effects are greater when the farmers' institutions are effectively involved** in the discussions pertaining to the steerage of the sectors, concerning decisions about prices, and beyond. However **this is not enough on its own** – the identification of inadequacies relating to several other objectives, equally important, clearly shows that efforts must still be made in all the organisation modes in place.

6.5. Market type of coordination failures are more likely to occur

288. The methodology carried out by the Resocot Project enables to assess the reality of coordination failures. To our knowledge, this is a bare empiric attempt is this regard. The approach being followed is robust to point out coordination failures which do not materialized, but less to assert on the failures which come real because it is sensitive to the way to implement assessment in case of missing information on performance indicators. This reservation must be kept in mind in going through what follows.

289. Coordination failures are a real handicap to the performance of the sectors. Very few of the identified potential failings were not found in reality in at least one country, in these concerned are coordination failures of the State type.

290. **Cases of failures occurring in all the countries are also rare and they concern the type of failures due to coordination by the market.**

291. The actions conducted in the organisation modes non-oriented by liberalisation do not enable all the possible failures to be overcome. Neither are there cases of coordination failures that the market was able to overcome better that collective rules resulting from collective actions. On the other hand, the converse is true, since failures that organisation mode oriented by liberalisation had not managed to overcome were successfully overcome by the organisation modes non-oriented by liberalisation.

292. Finally, **coordination failures of the market type appear to be more inevitable**. The frequency of occurrence of this type of failures is greater, whether all the technical stages are taken as a whole or just those that are affected to a greater extent by the systems of monopoly in seedcotton marketing. This difference is observable and the levels at which the failures occur can be seen to be higher with the organisation modes oriented by liberalisation. These are only indications owing to the insufficient number of countries with organisation modes liberalisation-oriented and to the lack of information on some performance indicators.

6.6. Two important lessons for restructuring the cotton sectors

293. In terms of what has been learnt **concerning the restructuring of the cotton sectors, the output of the Resocot Project can be resumed in two points:**

- The cotton sectors with organisation modes non-oriented by liberalisation have shown a good deal of creativity in implementing different actions of coordination. This is a capacity to evolve from a common ground plan towards different models that is kept in the sidelines in previous studies, whose conclusions are therefore highly debatable.
- The failures of coordination handicap the performance of the sectors. Some of these failures can be overcome, particularly by new processes of coordination which associate the farmers' institutions more. **This is not sufficient for overcoming all the failures, especially those related to the market, and above all in organisation modes oriented by the principle of liberalisation.**

294. The insistence on the positive feature of integrating farmers' institutions in decision-making, known as 'empowerment', lends support to the present aims of the international aid agencies. The importance of effective integration should be stressed however, and this depends on a long-term associative or cooperative, then federative, movement of the farmers. This is a condition that the modes of orientation non-oriented by liberalisation have been able to fulfil but that seems to be harder for other modes.

6.7. Requirement for a collective application of the methods and tools being carried out

295. Finally, **the results obtained and presented here are only transitory** (this is only the pilot phase of the project). It is hoped that they are sufficiently convincing that **the proposed methods and tools will be applied by all the stakeholders** in the cotton sector so that they may be more precisely assessed. It seems that this is a step that must be taken before deciding whether to adopt the proposed methods and tools as informative elements to be maintained as supports for discussions between stakeholders within specific exchange device. This decision could be made by individual countries, but it would be preferable if it were made **on a regional level** to avoid losing the comparative dimension of the evaluation of performance.

Annexe 1. Les indications par une approche comparative : Objectif de contribution à la réduction de la pauvreté

1. L'accroissement du revenu par l'augmentation du prix au producteur

1. Cet objectif partiel est relativement satisfait par l'ensemble des pays francophones bien qu'à un degré moyen. Le Burkina et le Cameroun sont les deux pays dont le niveau de performance est le plus élevé. En effet, la situation est favorable globalement pour l'ensemble des étapes techniques. Il semble que les points faibles au Cameroun et au Burkina soient en partie liés à un manque d'information sur les transaction d'achat des graines de coton : au Cameroun, les prix de vente des graines, le nombre de clients pour l'achat de graines… au Burkina les coûts du transport des graines…
2. Le Mali la Côte d'ivoire et le Bénin constituent un autre groupe de performance inférieure. Là aussi on peut expliquer en partie la faiblesse du niveau de performance par un manque d'information sur les coûts de transport de fibre et de graine, du stockage de la fibre, du transit.
3. En Côte d'Ivoire, il y a un manque d'informations sur les coûts de commercialisation de la fibre et de la graine (stockage, assurance, transit…) alors que des niveaux compétitifs peuvent se répercuter favorablement sur le prix à payer au producteur. Il y a également un manque d'information sur l'état des infrastructures routières, mais on peut constater que le coût du transport est relativement faible par rapport aux autres pays du réseau.
4. Le Bénin possède un atout du fait que le coton qu'il produit est en majorité supérieur ou égal au type correspondant à l'indice A (indicateur : part de la production en référence à l'indice A). Par contre, la sous-utilisation des capacités installées des usines dans ce pays est un élément de coût qui ne joue pas en faveur d'un meilleur prix au producteur.
5. Globalement, pour l'ensemble des pays francophones, la faiblesse des ventes de fibre sur le marché local constitue un élément défavorable à l'accroissement du revenu des paysans. Par contre la fiscalité au niveau de l'égrenage et de la vente de la fibre à l'export et sur le marché local est favorable.
6. Le Ghana est le pays qui est en situation la plus défavorable pour cet objectif partiel avec un prix au producteur franchement défavorable. Là aussi il y a un manque d'information en terme de coûts de commercialisation du coton-graine. Cependant, pour ce qui concerne l'achat du coton-graine, la situation est favorable, en terme de délai de paiement des paysans, de coût pour l'évacuation du coton-graine…

2. L'accroissement du revenu en diminuant les coûts des intrants :

7. Au niveau des étapes techniques concernées, l'importation/acquisition locale des intrants est globalement correcte, avec une relative stabilité du prix des intrants aux producteurs. La production locale des semences se fait également dans des conditions correctes.
8. En ce qui concerne l'importation des intrants, la mise en place du TEC au niveau de l'UEMOA s'est traduite par une baisse de la fiscalité appliquée aux intrants importés se répercutant favorablement dans la réduction du coût des intrants au niveau des paysans. Cela peut par contre jouer contre la formulation des engrais à partir d'ingrédients importés en vrac et qui seraient davantage taxés (Bénin)
9. La situation est plutôt favorable au Burkina Faso et en Côte d'Ivoire, moyennement favorable au Mali, et tendant vers la situation défavorable au Bénin et au Cameroun. L'ensemble des étapes techniques depuis l'importation des intrants à leur distribution est favorable. Au Bénin, cependant, on rapporte des problèmes d'acheminement et de retard dans la mise en place des intrants. Les indicateurs : différentiel prix cash/prix à crédit

des intrants, le ratio quantité d'intrants obtenus à crédit par rapport aux besoins, le taux de remboursement du crédit intrants sont d'un bon niveau.

10. Le Mali, le Bénin et la Côte d'Ivoire présentent un manque d'information sur les coûts du transport des intrants. Le Cameroun par contre, présente des coûts de transport défavorables.

11. Le Ghana est le pays qui présente la situation la plus défavorable du réseau, avec un nombre d'importateurs défavorable et un accès au crédit intrants défavorable : faible nombre de bénéficiaires de crédit, taux de crédit intrant élevé, taux de remboursement faible.... Pour ce qui concerne les coûts de transport, les informations ne sont pas disponibles. Les délais de livraison des intrants sont cependant bons, on n'a pas relevé de réclamations se rapportant aux intrants livrés en terme de quantité ou qualité, le coût de la semence est favorable (coût en kg du coton graine pour semer 1 ha de coton). La recherche étant défaillante dans ce domaine : on note un faible nombre de variétés enregistrées et un faible nombre de variétés nouvelles produites par la recherche.

3. L'accroissement du revenu des paysans par une amélioration de la productivité

12. La performance est globalement bonne pour l'ensemble des pays francophones, avec cependant des variations.

13. Globalement ce qui semble essentiellement distinguer les pays est la performance de la recherche. La recherche aurait joué un rôle important dans l'amélioration de la rentabilité du travail par unité de produit par la production de variétés améliorées à bon niveau de rendement. Le ratio de nombre important de producteurs par agent technique pénalise l'appréciation de la performance de certains pays.

14. Le Ghana est le pays qui présente la situation la plus défavorable du réseau, avec une recherche insignifiante en termes de budget, nombre de chercheurs, production variétale (nombre de variétés en cours d'enregistrement) et s'exprimant par un rendement très faible.

4. Réduction des risques liés aux facteurs naturels :

15. La performance est plutôt moyenne dans l'ensemble des pays. La recherche propose dans l'ensemble des pays francophones des paquets technologiques aux producteurs ainsi qu'un certain nombre d'innovations permettant de réduire les risques liés aux facteurs naturels. L'appréciation du conseil technique est pénalisée par un nombre très élevé de paysans par agent de conseil technique. C'est en Côte d'Ivoire qu'on note le degré de performance le plus faible du fait de la pauvreté du budget recherche, du faible nombre de conseillers techniques, ainsi que de la faible adoption de techniques nouvelles par les paysans.

16. Les ventes à l'export souffrent globalement des services d'assurance en relation avec une absence de marché concurrentiel.

17. Au Ghana, le bon niveau de performance relatif (équivalent aux pays francophones pour cet objectif) est attribuable à l'adoption massive par les paysans de la protection chimique pour se prémunir contre les risques naturels (attaque parasitaire…). L'appui technique et la recherche y sont déficients, aussi les rendements sont-ils très défavorables. Les informations sur les services d'assurances sont manquantes.

5. Réduction des risques économiques :

18. La performance vis à vis de cet objectif procède de la stabilisation intra-annuelle des prix aux producteurs.

19. Le Cameroun et le Mali apparaissent en situation très favorable alors que le Bénin, le Burkina et la Côte d'Ivoire tendent vers la situation défavorable. Les deux premiers sont plus performants pour les étapes techniques de production de coton-graine et d'achat local de coton-graine. La performance du Bénin pâtit d'un manque d'informations sur le financement et sur l'achat/export de coton-fibre mais a bénéficié d'une stratégie de diversification et de multiplication des clients (issus d'un grand nombre de pays). De même, la multiplication des institutions de micro-finances et de crédit intrants ou de crédit pour le matériel agricole sont des éléments positifs pour la gestion des risques au niveau des paysans.

20. La diversification des productions de vente comme moyens de gérer les risques économiques ne ressort favorablement qu'au Bénin, au Cameroun et en Côte d'Ivoire. Le niveau moyen des prix des produits vivriers et le manque de moyens pour organiser la commercialisation de ces produits sont cependant des éléments de contre-performance en terme de diversification des productions.

21. Le Ghana est le pays qui présente la situation la plus défavorable du réseau avec un prix moyen des produits vivriers et des quantités de produits vivriers commercialisés défavorables. L'accès au crédit de consommation y est également non favorable. Un manque important d'informations sur les conditions du crédit de consommation et sur l'accès aux outils de couverture des risques de marché a tiré vers le bas l'évaluation du niveau de performance de ce pays pour ce qui relève des risques économiques.

6. Améliorer la sécurité alimentaire

22. Globalement favorable dans les pays francophones, du fait qu'ils bénéficient d'une recherche et d'un conseil technique relativement satisfaisant qui intègrent les cultures vivrières. La production vivrière par habitant y est également relativement satisfaisante.

23. Le Ghana est le pays qui présente la situation la plus défavorable du réseau, avec une faiblesse de l'appui technique pour les cultures vivrières et un manque d'informations sur la production vivrière.

7. Augmenter le nombre de producteurs de coton

24. Globalement, la performance du système de distribution des intrants et du système de crédit intrants a été à l'origine de l'accroissement du nombre de producteurs de coton, dans les pays francophones. La Côte d'Ivoire, le Burkina Faso et le Mali se distinguent par un meilleur niveau de performance que les autres, et ce grâce à une bonne performance des étapes de distribution d'intrants (différentiel prix de l'intrant cash et à crédit, nombre de bénéficiaires de crédit intrants, taux de remboursement…), et de production de coton graine (évolution des surfaces, évolution du nombre de producteurs). Le Bénin se trouve moins bien loti en raison des lacunes en termes d'information sur la densité du réseau d'agents de conseil technique, l'évolution du coût total des intrants utilisés pour la production cotonnière et du faible nombre de producteurs

25. Le Ghana est le pays qui présente la situation la plus défavorable du réseau. En témoigne le niveau défavorable des indicateurs suivants pour les étapes techniques de distribution d'intrants, conseil technique et production de coton-graine: prix des intrants, taux de remboursement des crédits, différentiel des prix de cession des intrants cash et à crédit, évolution de la valeur ajoutée dans la production de coton graine, évolution des coûts des intrants utilisés pour la production de coton, rendement, nombre de producteurs de coton par agent de conseil technique, évolution de la surface cotonnière, nombre de producteurs de coton,

8. Augmentation de la part de revenu des exploitations cotonnières les moins bien loties,

26. L'ensemble des pays cotonniers du réseau est en position très favorable en particulier la Côte d'Ivoire, le Mali et le Burkina. Cela est dû de manière générale à l'équité dans l'accès aux intrants et crédits intrants puisque les producteurs y ont accès dans les mêmes conditions, quelle que soit la taille de leur exploitation (indicateur : taux de bénéficiaires de crédit intrant par type de producteur). L'appréciation de la performance du Bénin et du Cameroun serait pénalisée par l'absence d'information.

27. Le niveau défavorable de performance du Ghana est lié au manque d'informations en la matière.

9. Amélioration des infrastructures routières :

28. L'ensemble du réseau de pistes et de routes des zones cotonnières des pays francophones étudiés est en mauvais état et mal entretenu. Au Burkina, au Mali et au Cameroun, le nombre de kilomètres de routes goudronnées et de pistes profilées est correct, alors qu'il est faible au Bénin et en Côte d'Ivoire. Cela génère des coûts de transport élevé. Il faut noter que les informations sur les coûts du transport (intrants, fibre, graine) manquent en général.

29. Le Ghana se distingue par un niveau de performance supérieur à celui des autres pays du réseau du fait de son réseau routier relativement important. Les coûts de transport de coton-graine et de fibre sont manquants, par contre le coût du transport des graines de coton est très favorable.

10. Amélioration du service de formation/vulgarisation :

30. Le service de formation/vulgarisation souffre globalement, bien qu'à des degrés différents, de la faible densité de l'offre du service d'appui technique, alors que l'interprofession s'implique de plus en plus dans le conseil agricole et qu'il existe des formations à l'utilisation des pesticides.

31. Le Ghana, comme pour l'objectif partiel précédent, est en meilleure position que les autres pays, car la densité du réseau de conseiller techniques, au regard du nombre de producteurs, est supérieur à plusieurs pays francophones du réseau, et l'usage d'engrais sur production vivrière y est très favorable.

Annexe 2. Les indications par une approche comparative : Objectif de durabilité environnementale/santé publique

11. Préservation des aptitudes culturales des sols :

32. Le niveau de performance est globalement correct avec une tendance défavorable pour certains pays. Le Burkina, la Côte d'ivoire et le Mali sont en situation favorable du fait de la recherche (nombre de chercheurs travaillant sur le coton, recherche sur l'érosion, budget recherche). L'appréciation de la performance du Bénin et du Cameroun est pénalisés par un conseil technique déficient ou par un manque d'information en la matière.

33. La gestion de l'érosion est variable d'un pays à l'autre : assez diffuse au Bénin, plus importante en Côte d'Ivoire par l'existence d'un programme de gestion durable des sols même si la portée en est relativement faible (la gestion des sols faisant partie du paquet technologique que véhicule le conseil agricole). Au Cameroun les actions contre l'érosion des sols sont intégrées dans le programme DPGT (Développement Paysan et Gestion des Terroirs). Le maintien de la fertilité minérale est globalement bon car cette dernière bénéficie des conditions favorables d'accès aux engrais coton et de la recherche, mais la tendance à l'extension demeure.

34. Le maintien de la fertilité organique des sols est également correct, bien qu'au Bénin cela soit peu répandu avec une faible diffusion des pratiques d'association agriculture/élevage. La recherche joue un rôle favorable en développant les pratiques qui favorisent le statut organique des sols. Au Cameroun, il y a une promotion importante de l'association agriculture/élevage.

35. Au Ghana, la situation est nettement défavorable par rapport aux autres pays du réseau. Il y a peu ou pas d'actions contre l'érosion. De plus, les précautions ne sont pas prises pour préserver les sols : Les opérations de labour avec tracteurs sur des terrains fragiles sont devenues des pratiques courantes.

12. Contrôle de la pression parasitaire :

36. Cet objectif est globalement atteint de manière satisfaisante. Le nombre de traitements est conforme globalement aux normes vulgarisées par les services agricoles.

37. Le Bénin et le Burkina sont en tête parmi les pays francophones avec un dispositif performant de distribution d'intrants (période de livraison favorable, fourniture de crédit), une recherche orientée vers la lutte intégrée, des pratiques en terme de doses d'insecticides et de fréquence des traitements, conformes aux prescriptions de la recherche et du conseil technique.

38. En Côte d'Ivoire, le raisonnement du nombre de traitements recueille encore peu d'attention. La quantité globale d'insecticides utilisés demeure assez élevée, tout comme au Burkina Faso.

39. Globalement on utilise les bons insecticides au bon moment , mais il manque encore une orientation pour un meilleur raisonnement du contrôle chimique par une approche collective, une véritable mise en œuvre de la lutte intégrée.

40. Le Ghana est, pour cet objectif, en situation relativement favorable. Malgré l'absence de pratique de lutte intégrée, et de programme d'approche collective de la lutte chimique, l'indication de travaux menés sur le thème de la lutte intégrée, la composition des insecticides, les doses et fréquences des traitements pratiqués, le ratio des paysans à protection chimique concourent à conférer à ce pays un bon niveau de performance en terme de contrôle de pression parasitaire.

13. Prévention de la pollution des eaux par le produits chimiques

41. Globalement le niveau de performance est bon. Bien qu'un certain nombre d'éléments soient favorables comme la formation et l'information des paysans à l'emploi des insecticides, elles ne sont pas suffisantes : au Cameroun, le nombre de paysans formés directement est faible. On note globalement une insuffisance d'actions de formation et d'information sur les risques de pollution des eaux et une rareté des analyses des eaux souterraines. Le Ghana a un niveau de performance favorable pour cet objectif, au même niveau que le Bénin.

14. Prévention de l'empoisonnement des populations rurales

42. Globalement le niveau de performance est bon.

43. Les indicateurs sont l'existence d'information/formation à l'emploi des insecticides, le pourcentage de paysans formés à l'emploi des insecticides, la composition des insecticides (sélection au niveau de l'importation de produits à faible toxicité). On relève malgré tout des cas d'empoisonnement qui peuvent être attribués à la faiblesse de l'information/formation conduisant à l'usage indu de certains insecticides pour le stockage des vivres.

44. Le Ghana est aussi performant pour cet objectif partiel.

Annexe 3. Les indications par une approche comparative : Objectif de compétitivité internationale

15. Adaptation de la classification aux normes internationales de qualité

45. La performance est globalement favorable pour l'ensemble des pays francophones. Cette performance est fondée sur la performance de l'étape de classification avec des coûts de classement favorables (sauf au Burkina et au Mali où on note une absence de l'information correspondante), des équipements de classification globalement corrects à quelques exceptions près, et des litiges relatifs à la qualité du coton fibre jugés proportionnellement peu importants.

46. Le Bénin se distingue par un niveau de performance nettement supérieur du fait d'équipements HVI adapté aux normes internationales permettant d'avoir une visibilité sur la qualité du coton, en nombre plus important qu'en Côte d'Ivoire et au Burkina Faso, alors que le Cameroun n'en a pas encore.

47. Le coton fibre du Cameroun fait l'objet de litiges en terme de qualité (collage ne particulier) avec les clients.

48. Le Ghana est en situation très défavorable pour cet objectif partiel. Il y a un manque d'information notoire sur l'existence de litiges relatifs à la qualité et leur ampleur. Dans ce pays, il n'y a pas de classification de la fibre qui dépend de l'appréciation des clients.

16. Se conformer aux exigences qualitatives des utilisateurs :

49. La situation est globalement favorable pour les pays francophones, avec un avantage évident pour le Burkina et le Bénin. Globalement, il n'y a pas ou peu de conflits relatifs à la qualité (selon les déclarations recueillies). De manière générale, la recherche et la vulgarisation sont déterminants pour la satisfaction de cet objectif..

50. Au Burkina et au Bénin le différentiel de prix du coton-graine en fonction du choix est assez incitatif, aussi la répartition de la production totale en faveur de la meilleure qualité est excellente.

51. Le Bénin, comme pour l'objectif de développement précédent, occupe une place de choix : 95 % du coton au niveau bord champ est classé en 1er choix. Les opérateurs ont opté avec succès pour le principe d'unicité de la classification (une seule unité existe et est gérée par la SONAPRA) pour mieux contrôler le coût et la qualité finale du produit. Aussi, plus de la moitié du coton béninois est classé dans la catégorie correspondant à l'indice A. Les litiges relatifs à la qualité y sont rares.

52. Au Mali, la recherche et la vulgarisation ont une contribution positive à cet objectif respectivement par la production de variétés adaptées, et la promotion de bonnes techniques culturales; la performance vis à vis de cet objectif est cependant moyenne, du fait d'une faible part de la production du coton fibre en référence à l'indice A et un taux défavorable de litiges à l'exportation de fibre.

53. En Côte d'Ivoire le taux de 1er choix dans le coton-graine collecté est supérieur à 60 %. Le système de différentiel de prix associé au grade de coton-graine semble constituer un élément favorable.

54. Le Cameroun est le pays le moins performant du groupe des pays francophones, le différentiel de prix associé au grade de coton-graine étant plus faible, l'incitation à la production de qualité est plus faible. Le nombre de litiges relatifs à la qualité du coton fibre est très défavorable.

55. Le Ghana est en situation clairement défavorable pour cet objectif en absence de dispositif de classification, en raison d'une recherche très réduite qui ne produit pas de

variétés adaptées, un conseil technique déficient, un faible différentiel de prix d'achat du coton graine en fonction de la qualité. La commercialisation du coton-graine se fait, cependant, de manière à éviter la dégradation par les pluies de même que l'égrenage intervient assez rapidement après l'arrivée à l'usine afin d'écourter le stockage qui peut avoir des effets directs sur la qualité.

17. Réduction des coûts de production de la fibre

56. La situation est moyennement favorable pour l'ensemble des pays francophones. Le groupe constitué par la Côte d'Ivoire, le Cameroun et le Burkina est en position relativement meilleure que celui constitué par le Mali et le Bénin. Cela revient à l'efficacité de la commercialisation (durée des opérations d'achat du coton-graine, de l'évacuation du coton-graine…) et donc des frais de commercialisation favorables (coût du transport, du stockage…), et à des coûts d'égrenage et de classification corrects. Globalement les activités d'égrenage et de vente de la fibre localement ou à l'export sont faiblement taxées voire pas du tout et les coûts de classification bas.

57. Le nombre de sociétés de transit et le nombre d'acheteurs de coton fibre est globalement défavorable pour l'ensemble des pays francophones du réseau.

58. Le manque d'informations sur les coûts (transport de coton graine, stockage du coton graine avant égrenage, égrenage, stockage du coton fibre, classement, transport des balles, assurance de mise à CAF, transit) fait baisser l'évaluation de la performance pour certains pays. Le coût du transport du coton-graine jusqu'à l'usine est défavorable au Burkina et au Cameroun.

59. Au niveau du Bénin, les opérations de stockage, transit et assurance contribuent négativement à la réduction des coûts (coût des opérations de transit, nombre des sociétés de transit…). Dans ce pays, on est en situation de sur-capacité en terme d'unités d'égrenage, ce qui ne joue pas en faveur d'une réduction des coûts d'égrenage, contrairement à la Côte d'Ivoire où la capacité des unités de production des usines est pleinement utilisée.

60. Le Ghana a la situation la plus défavorable par rapport aux autres pays, pour cet objectif, du fait notamment d'une absence globale de données. Les coûts disponibles en terme de commercialisation du coton-graine, de taxes à l'égrenage sont cependant favorables.

18. Renforcer la compétitivité par l'obtention de meilleurs prix à la vente du coton fibre à l'export

61. Globalement pour les pays francophones, la performance pour cet objectif est moyenne (Mali, Burkina Faso, Cameroun) à défavorable (Bénin, Côte d'ivoire). On note pour cet objectif, un manque important d'informations, ce qui explique le niveau de performance des deux derniers pays.

62. Le différentiel du prix de vente du coton-fibre avec l'indice A pour le coton du type indice A est globalement favorable, ainsi que la fréquence de plaintes relatives au collage, à part en Côte d'Ivoire où l'information est manquante.

63. Le nombre d'acheteurs de coton fibre est globalement défavorable. La part de la production en référence à l'indice A est défavorable au Burkina et au Mali.

64. Pour le Ghana, on manque totalement d'information à ce sujet.

19. Renforcer la compétitivité par l'obtention de meilleurs prix à la vente locale du coton fibre

65. La situation est moyennement favorable pour le Mali, le Burkina Faso et le Cameroun, alors que pour le Bénin et la Côte d'Ivoire, l'évaluation de la performance est obérée par une faible disponibilité d'informations. La part de la production en référence à l'indice

A est toutefois défavorable au Burkina et au Mali alors qu'elle est favorable en Côte d'Ivoire et au Bénin. L'indicateur fréquence de plaintes relatives au collage est globalement favorable pour l'ensemble des pays francophones. Au Mali et au Cameroun le nombre de clients de coton fibre par type de vente est défavorable.

66. Pour le Ghana, on manque totalement d'information à ce sujet.

20. Renforcer la compétitivité par l'obtention de meilleurs prix à la vente locale ou à l'export des graines de coton

67. Pour cet objectif le Burkina et le Mali sont performants, le Bénin l'est moyennement.

68. Le nombre de clients à la vente de graines de coton est très favorable au Mali et au Burkina alors que le prix de vente des graines par position l'est pour le premier et pas pour le second. Au Bénin, le prix de vente des graines de coton par position est favorable.

69. En Côte d'Ivoire, le nombre d'acheteurs de graines de coton et le nombre de clients à la vente de graines de coton sont très défavorables.

70. Au Ghana , les données sont rares, cependant l'indicateur « nombre d'acheteurs de graines de coton » est très favorable.

21. Renforcer la compétitivité par la participation aux mécanismes de gestion du risque

71. La performance est défavorable au Burkina et en Côte d'Ivoire, clairement favorable au Cameroun et au Mali, et non informée pour le Bénin et le Ghana. Elle est évaluée en se basant sur l'indicateur : part de la production par type de vente.

72. Au Bénin, seule la diversification des clients (issus des différents continents) constitue un élément positif, alors que la faible diversité des contrats constitue un élément négatif. Nul n'accède au marché à terme.

Annexe 4. Incidence des niveaux de capacités sur l'atteinte des objectifs

1. Les niveaux du facteur clé "capacité à s'adapter aux fluctuations du marché par une compétitivité prix" sont en général :
   - favorables pour les objectifs de
     - "accroître le revenu coton des producteurs"
     - et "améliorer l'équité en termes de distribution de revenu coton entre les producteurs",
   - mais défavorable pour les objectifs de
     - "réduire les risques" (moins pour le Burkina Faso et le Mali)
     - et " renforcer la compétitivité en réduisant les coûts de production et de commercialisation de la fibre" (du fait de la non-communication des informations nécessaires), mais le Burkina Faso se distingue positivement.
   - Ces niveaux ont une incidence plutôt moyenne pour les autres objectifs concernés
     - améliorer la fourniture des services publics,
     - renforcer la compétitivité en s'adaptant aux exigences qualitatives des utilisateurs,
     - renforcer la compétitivité par l'obtention de meilleurs prix à la vente locale ou à l'exportation du coton fibre), mais cela peut être due à la non-communication des certaines informations nécessaires.
2. Les niveaux du facteur clé "capacité de résister aux fluctuations du marché par la qualité" sont en général :
   - favorables pour les objectifs de "réduire les risques" et "garantir la durabilité par la prévention des effets néfastes de l'utilisation des produits chimiques",
   - défavorable pour l'objectif de "renforcer la compétitivité en s'adaptant aux exigences qualitatives des utilisateurs".
   - Ces niveaux ont une incidence moyenne sur les objectifs de
     - "accroître le revenu coton des producteurs"
     - "améliorer la fourniture de services publics"
     - "améliorer l'équité en termes de distribution de revenu coton entre les producteurs"
     - "renforcer la compétitivité en réduisant les coûts de production et de commercialisation de la fibre".
3. Les niveaux du facteur clé "capacité à gagner en productivité à la production de coton-graine" sont en général :
   - favorables pour les objectifs de
     - "accroître le revenu coton des producteurs"
     - "améliorer l'équité en termes de distribution de revenu coton entre les producteurs",
   - ils ont une incidence moyenne sur les objectifs de
     - "réduire les risques" (le Bénin se distinguant négativement)
     - et " garantir une gestion durable des espaces cultivés".
   - Par contre, les pays ont des niveaux différenciés vis à vis des objectifs de

- "améliorer la fourniture de services publics" (le Cameroun et le Mali se distinguant positivement)
- et "garantir la durabilité par prévention des effets néfastes de l'utilisation des produits chimiques" (le Bénin et la Côte d'Ivoire se démarquant négativement).

4. Les niveaux du facteur clé "capacité à tempérer les effets d'évolution et de fluctuation des facteurs naturels" sont en général :
   - favorables pour les objectifs de
     - "améliorer l'équité en termes de distribution de revenu coton entre les producteurs"
     - et "accroître le revenu coton des producteurs",
   - défavorables pour l'objectif "réduire les risques",
   - mais d'une incidence moyenne sur les autres objectifs concernés
     - "améliorer la fourniture de services publics" (Le Cameroun, et même le Mali, se démarquant positivement),
     - "garantir une gestion durable des espaces cultivés"
     - et "garantir la durabilité par la prévention des effets néfastes de l'utilisation des produits chimiques".
5. Les niveaux du facteur clé "capacité à promouvoir une production durable et à préserver la santé " sont en général :
   - favorables pour les objectifs de
     - "accroître le revenu coton des producteurs",
     - "réduire les risques"
     - et "améliorer l'équité en termes de distribution de revenu coton entre les producteurs",
   - d'une incidence moyenne pour les objectifs de
     - "améliorer la fourniture de services publics"
     - "garantir une gestion durable des espaces cultivés",
   - par contre, les niveaux sont différenciés entre les pays pour l'objectif de "garantir la durabilité par la prévention des effets néfastes de l'utilisation des produits chimiques" (le Bénin se distinguant de manière négative).
6. Les niveaux du facteur clé "capacité à entretenir l'adhésion des paysans à la production cotonnière" sont en général
   - favorables pour les objectifs de
     - "accroître le revenu coton des producteurs"
     - et "améliorer l'équité en termes de distribution de revenu coton entre les producteurs"
   - et d'une incidence moyenne sur les autres objectifs concernés
     - "réduire les risques",
     - "améliorer la fourniture des services publics",
     - "garantir la durabilité par la prévention des effets néfastes de l'utilisation des produits chimiques,"
     - "renforcer la compétitivité en s'adaptant aux exigences qualitatives des utilisateurs".
7. Les niveaux du facteur clé "capacité à entretenir l'adhésion des autres acteurs à la production cotonnière" sont en général :

- favorables pour les objectifs de
    - "accroître le revenu des producteurs"
    - et "garantir la durabilité par prévention des effets néfastes de l'utilisation des produits chimiques"
- et d'une incidence moyenne sur les autre objectifs concernés
    - "améliorer la fourniture des services publics"
    - "renforcer la compétitivité en s'adaptant aux exigences qualitatives des utilisateur"

8. Les niveaux du facteur clé "capacité à fournir les biens et services publics/collectifs" sont en général d'une incidence moyenne
    - pour les objectifs de
        - "accroître le revenu des producteurs",
        - "améliorer la fourniture de services publics",
        - "garantir une gestion durable des espaces cultivés"
        - et "garantir la durabilité par la prévention des effets néfastes de l'utilisation des produits chimiques",
    - mais ils sont différenciés entre les pays pour les objectifs de
        - "réduire les risques" (Cameroun, Mali et Côte d'Ivoire se distinguant positivement)
        - et "améliorer l'équité en termes de distribution de revenu coton entre les producteurs" (la Côte d'Ivoire se démarquant de manière négative)
9. Les niveaux du facteur clé "capacité à prévenir et à gérer les conflits entre les acteurs " sont en général
    - favorables pour l'objectif de "renforcer la compétitivité en s'adaptant aux exigences qualitative s des utilisateurs",
    - défavorables pour les objectifs de
        - "réduire les risques",
        - "améliorer la fourniture de services publics"
        - et "renforcer la compétitivité en réduisant les coûts de production et de commercialisation de la fibre",
    - et d'une incidence moyenne sur les autres objectifs concernés
        - "accroître le revenu coton des producteurs" (la Côte d'Ivoire se démarquant négativement),
        - "améliorer l'équité en termes de distribution de revenu coton entre les producteurs" (Côte d'Ivoire et Burkina Faso se détachant positivement),
        - "garantir la durabilité par la prévention des effets néfastes de l'utilisation des produits chimiques"
        - et "renforcer la compétitivité par l'obtention de meilleurs prix à la vente locale ou à l'exportation du coton fibre".

Annexe 5. Incidence des considérations qualitatives sur les niveaux des facteurs clés

1. Pour le niveau du facteur clé de "capacité de s'adapter aux fluctuations du marché par une compétitivité prix", les considérations qualitatives qui, en général,

   - contribuent positivement sont "L'équité entre les paysans est-elle soutenu par une politique de péréquation territoriale du prix d'achat du coton-graine et du prix des intrants" et "Y-a-t-il une réduction par une fiscalité plus favorable",
   - celles qui contribuent négativement sont "Y-a-t-il eu une amélioration des moyens pour réduire les effets résultant des risques liés aux facteurs économiques", "Quelle est l'évolution de la démarche pour préserver la ressource terre", "Y-a-t-il une réduction des coûts dans l'égrenage du coton-graine", "Y-a-t-il une réduction des coûts de transaction à la vente du coton-fibre", "Quelle est l'évolution des moyens pour gagner en compétitivité prix du coton fibre" et "Quelle est l'évolution des moyens pour gagner en compétitivité prix du coton fibre".
   - Il y a par contre une variation entre les pays pour l'incidence des considérations suivantes : "Les paysans bénéficient-ils d'un mécanisme de stabilisation du prix d'achat du coton-graine", "Les paysans participent-ils davantage aux dispositifs qui déterminent les facteurs de leur revenu coton", "Quelle est l'évolution de l'image sur le prix obtenu à la vente du coton fibre" et "quel est l'état de la compétitivité prix".

2. Pour le niveau du facteur clé de "capacité à résister aux fluctuations du marché par la qualité", les considérations qualitatives qui, en général,

   - contribuent positivement sont "Quel est le comportement global des paysans face aux risques des facteurs naturels et économiques", "Quel est l'état de la qualité de la qualité du coton fibre produit" et "Quelle est l'évolution des moyens pour préserver la qualité après l'achat"
   - celles qui contribuent négativement sont : "Y-a-t-il une réduction des coûts dans l'égrenage du coton-graine" et "Quelle est l'évolution de l'image sur le prix obtenu à la vente du coton fibre"
   - alors qu'il y a une variation entre les pays pour l'incidence des considérations suivantes : "Quelle est l'évolution de la valeur ajoutée que les paysans retirent de la production cotonnière", "Quel est l'état de la qualité du coton fibre produit" et "Quelle est l'évolution des moyens pour améliorer la qualité au niveau des paysans"

3. Pour le niveau du facteur clé de "capacité à gagner en productivité à la production de coton-graine", les considérations qualitatives qui, en général,

   - contribuent positivement sont "Le revenu des paysans a-t-il bénéficié d'un meilleur accès aux intrants", "Quel est le comportement global des paysans face aux risques des facteurs naturels et économiques", "L'équité entre les paysans est-elle soutenu par une politique de péréquation territoriale du prix d'achat du coton-graine et du prix des intrants", et "Y-a-t-il un égal accès des paysans au conseil technique"
   - celles qui contribuent négativement sont : "Y-a-t-il eu une amélioration des moyens pour réduire les effets résultant des risques liés aux facteurs économiques", et "Quelle est l'évolution de la démarche pour préserver la ressource terre",
   - alors qu'il y a une variation entre les pays pour l'incidence des considérations suivantes : "Les paysans participent-ils davantage aux dispositifs qui déterminent les facteurs de leur revenu coton", "Y-a-t-il un égal accès des paysans au conseil technique", "Y-a-t-il un égal accès des paysans aux

équipements de production", "La fourniture de conseil technique par la formation/vulgarisation est-elle améliorée", "Quelle est l'évolution de l'approche pour gérer la pression parasitaire", "Quelle est l'évolution des effets néfastes consécutifs à l'emploi des produits chimiques sur la santé humaine en zone rurale" et "Quelle est l'évolution des moyens pour améliorer la qualité au niveau des paysans".

4. Pour le niveau du facteur clé de "capacité à tempérer les effets d'évolution et de fluctuation des facteurs naturels", les considérations qualitatives qui, en général,

   - contribuent positivement sont "Y-a-t-il un égal accès des paysans au conseil technique", "Y-a-t-il un égal accès des paysans au conseil technique" et "La fourniture de conseil technique par la formation/vulgarisation est-elle améliorée"
   - celles qui contribuent négativement sont : "Y-a-t-il une amélioration des moyens pour réduire les effets résultant des risques liés aux facteurs naturels", "Quelle est l'évolution de la ressource terre" et "Quelle est l'évolution de la démarche pour préserver la ressource terre"
   - alors qu'il y a une variation entre les pays pour l'incidence des considérations suivantes : "Le revenu des paysans a-t-il bénéficié d'un meilleur accès aux intrants", "Quelle est l'évolution de l'approche pour gérer la pression parasitaire" et "Quelle est l'évolution de l'image sur le prix obtenu à la vente du coton fibre"

5. Pour le niveau du facteur clé de "capacité à promouvoir une production durable et à préserver la santé", les considérations qualitatives qui, en général,

   - contribuent positivement sont "Quel est le comportement global des paysans face aux risques des facteurs naturels et économiques", "Y-a-t-il un égal accès des paysans au conseil technique" et "La fourniture de conseil technique par la formation/vulgarisation est-elle améliorée"
   - celle qui contribue négativement est : "Quelle est l'évolution de l'état de pollution des eaux"
   - alors qu'il y a une variation entre les pays pour l'incidence des considérations suivantes : "Y-a-t-il un égal accès des paysans au conseil technique", "Quelle est l'évolution de la démarche pour préserver la ressource terre", "Quelle est l'évolution de l'approche pour gérer la pression parasitaire" et "Quelle est l'évolution des effets néfastes consécutifs à l'emploi des produits chimiques sur la santé humaine en zone rurale"

6. Pour le niveau du facteur clé de "capacité à entretenir l'adhésion des paysans à la production cotonnière", les considérations qualitatives qui, en général,

   - contribuent positivement sont "Les paysans bénéficient-ils d'un mécanisme de stabilisation du prix d'achat du coton-graine", "Le revenu des paysans a-t-il bénéficié d'un meilleur accès aux intrants", "Quel est le comportement global des paysans face aux risques des facteurs naturels et économiques", "L'équité entre les paysans est-elle soutenu par une politique de péréquation territoriale du prix d'achat du coton-graine et du prix des intrants", "Y-a-t-il un égal accès des paysans au conseil technique", "Y-a-t-il un égal accès des paysans au conseil technique" et "La fourniture de conseil technique par la formation/vulgarisation est-elle améliorée"
   - celles qui contribuent négativement sont : "y-a-t-il une évolution positive du prix d'achat du coton-graine aux producteurs", "De manière générale, la perception des risques par les paysans engagés dans la production cotonnière s'est-elle accentuée", "Y-a-t-il eu une amélioration des moyens pour réduire les effets résultant des risques liés aux facteurs économiques", "Quelle est

l'évolution de la ressource terre" et "Quelle est l'évolution des moyens pour prévenir contre les effets néfastes sur la santé"

- alors qu'il y a une variation entre les pays pour l'incidence des considérations suivantes : "Le nombre de paysans cotonniers a-t-il augmenté", "y-a-t-il une différenciation entre les paysans cotonniers dans le bénéficie qu'ils retirent du coton", "Les paysans participent-ils davantage aux dispositifs qui déterminent les facteurs de leur revenu coton", "Y-a-t-il un égal accès des paysans aux équipements de production", "Quelle est l'évolution de la part des paysans dans la valeur ajoutée que les paysans retirent de la production cotonnière", "Quelle est l'évolution de la démarche pour préserver la ressource terre", "Quelle est l'évolution des effets néfastes consécutifs à l'emploi des produits chimiques sur la santé humaine en zone rurale" et "Quelle est l'évolution des moyens pour améliorer la qualité au niveau des paysans"

7. Pour le niveau du facteur clé de "capacité à entretenir l'adhésion des autres acteurs à la production cotonnière", les considérations qualitatives qui, en général,

   - contribuent positivement sont "Quelle est l'évolution des moyens pour préserver la qualité après l'achat" et "Y-a-t-il une réduction par une fiscalité plus favorable"
   - celles qui contribuent négativement sont : "Y-a-t-il une réduction des coûts dans l'égrenage du coton-graine" et "Y-a-t-il une réduction des coûts de transaction à la vente du coton-fibre"

8. Pour le niveau du facteur clé de "capacité à fournir les biens ou services publics/collectifs", les considérations qualitatives qui, en général,

   - contribuent positivement sont "Y-a-t-il un égal accès des paysans au conseil technique"
   - celles qui contribuent négativement sont : "Quelle est l'évolution de l'état de pollution des eaux"
   - alors qu'il y a une variation entre les pays pour l'incidence des considérations suivantes : "Y-a-t-il une amélioration des moyens pour réduire les effets résultant des risques liés aux facteurs naturels"
   - mais plusieurs autres considérations qualitatives ont une incidence moyenne sur ce facteur clé

9. Pour le niveau du facteur clé de "capacité à prévenir et à gérer les conflits entre les acteurs", les considérations qualitatives qui, en général,

   - contribuent positivement sont "Les paysans bénéficient-ils d'un mécanisme de stabilisation du prix d'achat du coton-graine", "Le revenu des paysans a-t-il bénéficié d'un meilleur accès aux intrants" et "Y-a-t-il une réduction par une fiscalité plus favorable"
   - celles qui contribuent négativement sont : "De manière générale, la perception des risques par les paysans engagés dans la production cotonnière s'est-elle accentuée", "Quelle est l'évolution de la ressource terre", "quel est l'état de la compétitivité prix" et "Quelle est l'évolution des moyens pour gagner en compétitivité prix du coton fibre"
   - alors qu'il y a une variation entre les pays pour l'incidence des considérations suivantes : "Les paysans participent-ils davantage aux dispositifs qui déterminent les facteurs de leur revenu coton", "Quelle est l'évolution de la part des paysans dans la valeur ajoutée que les paysans retirent de la production cotonnière", "Quelle est l'évolution de la démarche pour préserver la ressource terre", "Quelle est l'évolution de l'approche pour gérer la pression parasitaire" et"Quelle est l'évolution des moyens pour améliorer la qualité au niveau des paysans".

Annexe 6 Nombre de pays en fonction de l'occurrence des défaillances de coordination

			ype défaillance							
			Défaillance non avérée				Défaillance avérée			
			Orientation monopole		Orientation libéralisation		Orientation monopole		Orientation libéralisation	
Objectif partiel de dével. de niveau 1	**Etape technique**	**Défaillance**	**Etat**	**Marché**	**Etat**	**Marché**	**Etat**	**Marché**	**Etat**	**Marché**
Accroître le revenu coton des producteurs	Transport maritime	Economie d'échelle transport maritime		3				2		1
	Fournis. internat. d'intrants	Absence de politique de concurrence efficace	2				3		1	
		Inadéquation des intrants compte tenu des conditions locales	4		1		1			
		Incomplétude des marchés financiers		5						1
		Incomplétude du marché de l'information (sur les quantités nécessaires)		4				1		1
		Inefficacité du contrôle qualité et certification des intrants	5		1					
		Inefficacité productive dans la négociation des contrats d'importation d'intrants	3				2		1	
		Manque de ressources pour le financement des achats d'intrants	4				1		1	
		Oligopole des fournisseurs d'intrants		5						1
		Recherche de rente dans l'allocation de licences pour l'importation de semences	2				3		1	
		Recherche de rente dans l'octroi de licences aux importateurs	4				1		1	
		Taxation excessive à l'importation des intrants	3		1		2			
	Fabricant local d'intrants	Inadéquation des intrants compte tenu des conditions locales	4		1		1			
		Inefficacité du contrôle qualité et certification des intrants	4		1		1			
	Production de semences	Absence de protection de la propriété intellectuelle relative aux variétés produites		2				3		1
		Economie d'échelle dans la production et distribution de semences		2		1		3		
		Incomplétude du marché de l'information (sur les quantités nécessaires)		3		1		2		
		Inefficacité dans la production de semences à capacité germinative satisfaisante	3				2		1	
		Recherche de rente dans la certification des semences	3				2		1	
	Transport d'intrants	Inefficacité productive dans l'utilisation des camions (surinvestissement, non entretien, détournement)	2				3		1	
		Mauvais entretien des routes et des pistes par manque de ressources ou par inefficacité	3		1		2			
		Nature de bien public des routes et des pistes		2				3		1
	Distribution d'intrants	Incomplétude des marchés financiers		2				3		1

Annexe 6 Nombre de pays en fonction de l'occurrence des défaillances de coordination

		ype défaillance			
		Défaillance non avérée		Défaillance avérée	
		Orientation monopole	Orientation libéralisation	Orientation monopole	Orientation libéralisation
	Incomplétude du marché de l'information (sur les quantités produites et disponibles)	2		3	1
	Inefficacité productive dans le conditionnement des intrants	5	1		
	Insuffisance de concurrence dans la distribution des intrants aux paysans	3		2	1
	Manque de ressources pour organiser le crédit intrants	4		1	1
	Retards dans le timing de la vente aux paysans	3	1	2	
	Risque moral des emprunteurs de crédit	4		1	1
	Ventes des intrants au paysan à prix et à qualité de monopole	3		2	1
Recherche	Nature de bien commun des connaissances techniques utilisées pour la culture	4		1	1
	Nature de bien commun des ressources génétiques	2		3	1
	Recherche de rente dans l'enregistrement des variétés	1		4	1
Conseil technique	Nature de bien commun des connaissances techniques utilisées pour la culture	3		2	1
Production de CG	Absence de marché de terres cultivables	2		3	1
	Inefficacité dans la protection des espaces cultivables	5			1
	Nature de bien commun de la réserve en terre arable du village	5			1
	Recherche de rente sur les terres de haute valeur	2		3	1
Achat local de CG	Achat de coton graine au prix de monopsone	5			1
	Inefficacité dans l'organisation de la commercialisation du coton graine	3	1	2	
	Inefficacité du contrôle de qualité du coton graine	3		2	1
	Manque de ressources pour réaliser l'achat du coton graine	5	1		
	Oligopole des acheteurs de coton graine ou concurrence non régulée	5			1
	Recherche de rente dans la distribution de quotas d'égrenage aux égreneurs	4	1	1	
	Recherche de rente dans la fourniture de licences aux égreneurs	1		4	1
Transport CG	Inefficacité productive dans l'utilisation des camions (surinvestissement, non entretien, détournement)	4		1	1
	Mauvais entretien des routes et des pistes par manque de ressources ou par inefficacité	3	1	2	
	Nature de bien public des routes et des pistes	3	1	2	
	Oligopole des sociétés de transport	3	1	2	
	Recherche de rente dans la contractualisation du transport	4		1	1
	Saisonnalité de la demande pour le transport de marchandises	3	1	2	

Annexe 6 Nombre de pays en fonction de l'occurrence des défaillances de coordination

		ype défaillance			
		Défaillance non avérée		Défaillance avérée	
		Orientation monopole	Orientation libéralisation	Orientation monopole	Orientation libéralisation
Egrenage	Difficulté à évaluer certaines caractéristiques du coton graine déterminantes des caractéristiques du coton fibre (collage par exemple)	2		3	1
	Existence d'économies d'échelle dans l'activité d'égrenage	2		3	1
	Incomplétude des marchés financiers	2		3	1
	Incomplétude du marché de l'assurance			5	1
	Inefficacité du contrôle de qualité du coton graine	3		2	1
	Inefficacité du contrôle qualité de la fibre	3		2	1
	Inefficacité productive dans le stockage du coton graine	1	1	4	
	Inefficacité productive dans l'égrenage	3	1	2	
	Sous-investissements par manque de ressources pour compléter les équipements d'égrenage	4	1	1	
	Taxation excessive sur la filière	4	1	1	
Classification	Difficulté à évaluer certaines caractéristiques prises en compte par les utilisateurs finaux (collage, SCF)	4		1	1
	Existence d'économie d'échelle dans le classement	4		1	1
	Incomplétude des marchés financiers	2		3	1
	Incomplétude du marché de l'assurance			5	1
	Inefficacité productive dans la classification du coton fibre	3	1	2	
	Manque de ressources pour investir dans les équipements de classification conformes aux normes de qualité de la fibre	4		1	1
Achat local coton fibre	Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	1		4	1
	Taxation excessive sur la filière	5			1
Transport fibre	Inefficacité productive dans l'utilisation des camions (surinvestissement, non entretien, détournement)	2		3	1
	Manque de ressources pour financer l'achat des camions	3	1	2	
	Nature de bien public des routes et des pistes	3		2	1
	Recherche de rente dans la contractualisation du transport	3		2	1
Stockage (au port)	Difficultés à s'adapter aux capacités de stockage	2		3	1
	Incomplétude du marché de l'assurance			5	1
	Inefficacité productive dans le stockage du coton fibre (surinvestissement, non entretien, détournement)	3		2	1
	Manque de ressources pour investir dans de nouveaux entrepôts	1		4	1
	Oligopole des sociétés de stockage au port	1		4	1
	Oligopole des transitaires au port	2		3	1
Transit	Oligopole des transitaires au port			5	1
Achat export de coton fibre	Incomplétude des marchés financiers	2		3	1

Annexe 6 Nombre de pays en fonction de l'occurrence des défaillances de coordination

			ype défaillance			
			Défaillance non avérée		Défaillance avérée	
			Orientation monopole	Orientation libéralisation	Orientation monopole	Orientation libéralisation
		Incomplétude du marché de l'assurance	1		4	1
		Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	1		4	1
		Nature de bien public de la réputation internationale du coton du pays	4		1	1
		Oligopole des négociants de coton fibre ou graines de coton	1		4	1
		Taxation excessive sur la filière	5		1	
	Achat local de graines	Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	3		2	1
		Oligopole des négociants de coton fibre ou graines de coton	1	1	4	
		Taxation excessive sur la filière	1		4	1
	Transport Graine de coton	Inefficacité productive dans l'utilisation des camions (surinvestissement, non entretien, détournement)	3	1	2	
		Nature de bien public des routes et des pistes	3	1	2	
		Recherche de rente dans la contractualisation du transport	3	1	2	
	Achat export de graines	Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	3		2	1
		Oligopole des négociants de coton fibre ou graines de coton	1	1	4	
		Taxation excessive sur la filière	1		4	1
Réduire les risques	Recherche	Nature de bien commun des connaissances techniques utilisées pour la culture	3		2	1
	Conseil technique	Nature de bien commun des connaissances techniques utilisées pour la culture	3		2	1
	Production de CG	Imperfection du marché des produits vivriers	5			1
		Imperfection du marché du travail	5			1
		Incomplétude des marchés financiers	5			1
		Incomplétude du marché de l'assurance	5			1
		Inefficacité dans l'organisation des marchés vivriers	4		1	1
		Manque de ressources pour organiser la commercialisation des produits vivriers	2		3	1
		Nature de bien commun des connaissances techniques utilisées pour la culture	4	1	1	
	Finance	Absence de marché de terres cultivables			5	1
		Incomplétude des marchés financiers	2		3	1
		Incomplétude du marché de l'information (sur les quantités produites et disponibles)			5	1
		Manque de ressources pour fournir le crédit consommation	1		4	1
		Risque moral des emprunteurs de crédit	1		4	1
	Achat local de CG	Achat de coton graine au prix de monopsone	5	1		

Annexe 6 Nombre de pays en fonction de l'occurrence des défaillances de coordination

			ype défaillance			
			Défaillance non avérée		Défaillance avérée	
			Orientation monopole	Orientation libéralisation	Orientation monopole	Orientation libéralisation
		Entente entre les acheteurs de coton graine	5	1		
	Egrenage	Incomplétude du marché de l'assurance	4		1	1
	Stockage (au port)	Incomplétude du marché de l'assurance	2	1	3	
	Achat export de coton fibre	Incomplétude des marchés financiers	2		3	1
		Incomplétude du marché de l'assurance	2	1	3	
		Manque de ressources pour le fonctionnement de la filière	2		3	1
Améliorer l'équité en termes de distribution de revenu coton entre les producteurs	Distribution d'intrants	Incomplétude du marché de l'information (sur les quantités produites et disponibles)	4		1	1
		Insuffisance de concurrence dans la distribution des intrants aux paysans	3		2	1
		Manque de ressources pour organiser le crédit intrants	4		1	1
		Recherche de rente dans le choix des paysans bénéficiaires de crédit intrants	4		1	1
		Retards dans le timing de la vente aux paysans	3	1	2	
		Risque moral des emprunteurs de crédit	4		1	1
		Ventes des intrants au paysan à prix et à qualité de monopole	3		2	1
	Conseil technique	Nature de bien commun des connaissances techniques utilisées pour la culture			5	1
	Production de CG	Nature de bien commun de la réserve en terre arable du village	3		2	1
Améliorer la fourniture de services publics	Transport d'intrants	Mauvais entretien des routes et des pistes par manque de ressources ou par inefficacité	2		3	1
		Nature de bien public des routes et des pistes	2		3	1
	Conseil technique	Inefficacité de la coordination de la connaissance vulgarisée fournie par différentes agences	2	1	3	
		Nature de bien commun des connaissances techniques utilisées pour la culture	2	1	3	
	Transport CG	Mauvais entretien des routes et des pistes par manque de ressources ou par inefficacité	3	1	2	
		Nature de bien public des routes et des pistes	3	1	2	
	Transport fibre	Mauvais entretien des routes et des pistes par manque de ressources ou par inefficacité	2	1	3	
		Nature de bien public des routes et des pistes	2	1	3	
	Transport Graine de coton	Mauvais entretien des routes et des pistes par manque de ressources ou par inefficacité	2	1	3	
		Nature de bien public des routes et des pistes	2	1	3	
	Autre	Nature de mal commun des maladies infectieuses	1		4	1

Annexe 6 Nombre de pays en fonction de l'occurrence des défaillances de coordination

			ype défaillance			
			Défaillance non avérée		Défaillance avérée	
			Orientation monopole	Orientation libéralisation	Orientation monopole	Orientation libéralisation
Garantir une gestion durable des espaces cultivés	Fournis. internat. d'intrants	Difficulté à évaluer les caractéristiques des engrais et pesticides	4	1	1	
		Inefficacité productive dans la négociation des contrats d'importation d'intrants	4		1	1
	Fabricant local d'intrants	Difficulté à évaluer les caractéristiques des engrais et pesticides	4	1	1	
	Distribution d'intrants	Difficulté à évaluer les caractéristiques des engrais et pesticides	3	1	2	
		Incomplétude des marchés financiers	3	1	2	
		Incomplétude du marché de l'information sur les quantités réellement demandées par les paysans et les périodes de commande	4		1	1
	Recherche	Inefficacité de la gestion de la protection phytosanitaire	4	1	1	
		Nature de bien commun des connaissances techniques utilisées pour la culture	4		1	1
	Conseil technique	Inefficacité de la gestion de la protection phytosanitaire	5	1		
		Nature de bien commun des connaissances techniques utilisées pour la culture			5	1
	Production de CG	Absence de marché de terres cultivables	5			1
		Inefficacité de la gestion de la protection phytosanitaire	4	1	1	
		Nature de bien commun de la réserve en terre arable du village			5	1
		Nature de bien commun des nappes phréatiques	2		3	1
		Nature de mal commun de la pression parasitaire	4	1	1	
Garantir la durabilité par la prévention des effets néfastes de l'utilisation des produits chimiques	Fournis. internat. d'intrants	Inefficacité du contrôle qualité et certification des intrants	5	1		
		Inefficacité productive dans la négociation des contrats d'importation d'intrants	5	1		
	Fabricant local d'intrants	Inefficacité du contrôle qualité et certification des intrants	5	1		
	Distribution d'intrants	Difficulté à évaluer les caractéristiques des engrais et pesticides	5			1
	Conseil technique	Nature de bien commun des connaissances techniques utilisées pour la culture	3	1	2	
	Production de CG	Nature de bien commun des nappes phréatiques	1		4	1
Renforcer la compétitivité en	Recherche	Difficulté à évaluer certaines caractéristiques du coton graine déterminantes des caractéristiques du coton fibre (collage par exemple)	3		2	1
		Nature de bien commun des connaissances techniques utilisées pour la culture	3		2	1

Annexe 6 Nombre de pays en fonction de l'occurrence des défaillances de coordination

			ype défaillance			
			Défaillance non avérée		Défaillance avérée	
			Orientation monopole	Orientation libéralisation	Orientation monopole	Orientation libéralisation
s'adaptant aux exigences qualitatives des utilisateurs	Conseil technique	Difficulté à évaluer certaines caractéristiques du coton graine déterminantes des caractéristiques du coton fibre (collage par exemple)	3		2	1
		Nature de bien commun des connaissances techniques utilisées pour la culture	3		2	1
	Production de CG	Difficulté à évaluer certaines caractéristiques du coton graine déterminantes des caractéristiques du coton fibre (collage par exemple)	3		2	1
		Nature de bien commun des connaissances techniques utilisées pour la culture	3		2	1
	Achat local de CG	Difficulté à évaluer certaines caractéristiques du coton graine déterminantes des caractéristiques du coton fibre (collage par exemple)	3		2	1
		Inadéquation de la date officielle d'ouverture de la saison pour l'achat du coton-graine (maturité du coton)	4		1	1
	Egrenage	Difficulté à évaluer certaines caractéristiques du coton graine déterminantes des caractéristiques du coton fibre (collage par exemple)	3		2	1
	Classification	Difficulté à évaluer certaines caractéristiques prises en compte par les utilisateurs finaux (collage, SCF)	4		1	1
		Existence d'économie d'échelle dans le classement	4		1	1
		Inefficacité productive dans la classification du coton fibre	3		2	1
		Manque de ressources pour investir dans les équipements de classification conformes aux normes de qualité de la fibre	3		2	1
		Recherche de rente dans l'enregistrement des variétés	2		3	1
		Risque moral sur la qualité vendue de la fibre ou des graines	4		1	1
	Achat local coton fibre	Risque moral sur la qualité vendue de la fibre ou des graines	3		2	1
	Achat export de coton fibre	Risque moral sur la qualité vendue de la fibre ou des graines	3		2	1
	Achat local de graines	Risque moral sur la qualité vendue de la fibre ou des graines	3		2	1
	Achat export de graines	Risque moral sur la qualité vendue de la fibre ou des graines	3		2	1
Renforcer la compétitivité en réduisant les coûts de production et de commerciali	Achat local de CG	Achat de coton graine au prix de monopsone	5			1
		Bien collectif des points de ramassage	4		1	1
		Incomplétude des marchés financiers	4		1	1
		Incomplétude du marché de l'information (sur les quantités produites et disponibles)	4		1	1
		Inefficacité dans l'organisation de la commercialisation du coton graine	4		1	1
		Inefficacité productive dans le stockage du coton graine	1	1	4	
		Manque de ressources pour réaliser l'achat du coton graine	5	1		

Annexe 6 Nombre de pays en fonction de l'occurrence des défaillances de coordination

			ype défaillance			
			Défaillance non avérée		Défaillance avérée	
			Orientation monopole	Orientation libéralisation	Orientation monopole	Orientation libéralisation
sation de la fibre jusqu'à la vente sur le marché local ou exportatio		Recherche de rente dans la classification du coton graine	5	1		
	Transport CG	Inefficacité productive dans l'utilisation des camions (surinvestissement, non entretien, détournement)	5			1
		Mauvais entretien des routes et des pistes par manque de ressources ou par inefficacité	4		1	1
		Nature de bien public des routes et des pistes	3	1	2	
		Oligopole des sociétés de transport	3	1	2	
		Saisonnalité de la demande pour le transport de marchandises	3	1	2	
	Egrenage	Difficulté à évaluer certaines caractéristiques du coton graine déterminantes des caractéristiques du coton fibre (collage par exemple)	2		3	1
		Existence d'économies d'échelle dans l'activité d'égrenage	2		3	1
		Incomplétude des marchés financiers	2		3	1
		Incomplétude du marché de l'assurance			5	1
		Inefficacité du contrôle de qualité du coton graine	3		2	1
		Inefficacité productive dans le stockage du coton fibre (surinvestissement, non entretien, détournement)	1	1	4	
		Inefficacité productive dans le stockage du coton graine	1	1	4	
		Inefficacité productive dans l'égrenage	3	1	2	
		Sous-investissements par manque de ressources pour compléter les équipements d'égrenage	4	1	1	
		Taxation excessive sur la filière	5	1		
	Classification	Difficulté à évaluer certaines caractéristiques prises en compte par les utilisateurs finaux (collage, SCF)	4		1	1
		Existence d'économie d'échelle dans le classement	4		1	1
		Incomplétude des marchés financiers	2		3	1
		Incomplétude du marché de l'assurance			5	1
		Inefficacité productive dans la classification du coton fibre	2		3	1
		Manque de ressources pour investir dans les équipements de classification conformes aux normes de qualité de la fibre	4		1	1
		Nature de bien public des routes et des pistes	3		2	1
	Achat local coton fibre	Taxation excessive sur la filière	5			1
	Transport fibre	Inefficacité productive dans l'utilisation des camions (surinvestissement, non entretien, détournement)	3		2	1
	Stockage (au port)	Difficultés à s'adapter aux capacités de stockage	2		3	1
		Incomplétude du marché de l'assurance			5	1
		Oligopole des sociétés de stockage au port	1		4	1
		Oligopole des transitaires au port	2		3	1

Annexe 6 Nombre de pays en fonction de l'occurrence des défaillances de coordination

			ype défaillance			
			Défaillance non avérée		Défaillance avérée	
			Orientation monopole	Orientation libéralisation	Orientation monopole	Orientation libéralisation
	Transit	Oligopole des transitaires au port			5	1
	Achat export de coton fibre	Incomplétude des marchés financiers	2		3	1
		Incomplétude du marché de l'assurance	1		4	1
		Nature de bien public de la réputation internationale du coton du pays	4		1	1
		Oligopole des négociants de coton fibre ou graines de coton	1		4	1
		Taxation excessive sur la filière	5			1
	Achat local de graines	Taxation excessive sur la filière	1		4	1
	Transport Graine de coton	Inefficacité productive dans l'utilisation des camions (surinvestissement, non entretien, détournement)	3	1	2	
	Achat export de graines	Oligopole des négociants de coton fibre ou graines de coton	1	1	4	
		Taxation excessive sur la filière	1		4	1
Renforcer la compétitivité par l'obtention de meilleurs prix à la vente locale ou à l'exportation du coton fibre	Achat local coton fibre	Inefficacité dans l'adaptation du timing des ventes aux périodes où prix le plus élevé à l'export	2		3	1
		Nature de bien public de la réputation internationale du coton du pays	4		1	1
	Achat export de coton fibre	Incomplétude des marchés financiers	2		3	1
		Incomplétude du marché de l'assurance	1		4	1
		Inefficacité dans l'adaptation du timing des ventes aux périodes où prix le plus élevé à l'export	2		3	1
		Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	1		4	1
		Nature de bien public de la réputation internationale du coton du pays	4		1	1
		Oligopole des négociants de coton fibre ou graines de coton	1		4	1
		Recherche de rente dans les services de transit	2		3	1
	Achat local de graines	Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	3		2	1
		Oligopole des négociants de coton fibre ou graines de coton	3		2	1
	Achat export de graines	Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	3		2	1
Renforcer la compétitivité par l'obtention	Achat local de graines	Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	2		3	1
		Oligopole des négociants de coton fibre ou graines de coton	2		3	1
	Achat export de graines	Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	3		2	1
		Oligopole des négociants de coton fibre ou graines de coton	1	1	4	

Annexe 7 Les actions identifiées pour avoir empêcher l'occurrence des défaillances de coordination

Etape technique	Défaillance	action d'état	action collective	Réaction du marché
Transport maritime	Economie d'échelle transport maritime			
Fournis. internat. d'intrants	Incomplétude des marchés financiers		Intégration de la condition de crédit fournisseur de 200 à 360 jours	octroi de crédit fournisseur dans l'acquisition des intrants sur appel d'offres
	Incomplétude du marché de l'information (sur les quantités nécessaires)		système de recensement des besoins en intrants impliquant les organisation paysannes	
	Oligopole des fournisseurs d'intrants		Elargissement des fournisseurs par appel d'offres internationales	caractère captif du marché des intrants des filières cotonnières pour les fournisseurs potentiels
Production de semences	Incomplétude du marché de l'information (sur les quantités nécessaires)		système de recensement des besoins en intrants impliquant les organisation paysannes	
Distribution d'intrants	Insuffisance de concurrence dans la distribution des intrants aux paysans	Régulation de la distribution dans le sens d'un monopole ou d'une privatisation administrée		
	Risque moral des emprunteurs de crédit		Application de la caution solidaire au sein des organisations paysannes chargées de la gestion du crédit intrant	
Recherche	Nature de bien commun des connaissances techniques utilisées pour la culture		Prise en charge du financement conséquent de la recherche par la filière cotonnière	
Conseil technique	Nature de bien commun des connaissances techniques utilisées pour la culture		Prise en charge du financement conséquent de la vulgarisation par la filière cotonnière	
Production de CG	Nature de bien commun de la réserve en terre arable du village		Règles traditionnelles de gestion des terres dans les villages	
Achat local de CG	Oligopole des acheteurs de coton graine ou concurrence non régulée	Régulation par administration de monopole à l'échelle nationale ou locale		

Annexe 7 : Les actions identifiées pour avoir empêcher l'occurrence des défaillances de coordination

Etape technique	Défaillance	action d'état	action collective	Réaction du marché
Transport CG	Nature de bien public des routes et des pistes		Prise en charge du financement de l'entretien et de la maintenance des pistes rurales par la filière cotonnière	
	Oligopole des sociétés de transport		Pouvoir de négociation des sociétés cotonnières disposant d'un parc autonome de camions de taille suffisante	
	Saisonnalité de la demande pour le transport de marchandises			Caractère captif du marché de transports des filières cotonnières pour les transporteurs nationaux
Classification	Difficulté à évaluer certaines caractéristiques prises en compte par les utilisateurs finaux (collage, SCF)		Adaptation des programmes de protection phytosanitaire et bon réglage de l'égrenage pour éviter les problèmes de collage et de SCF	
	Existence d'économie d'échelle dans le classement		Option d'un mode de classement conventionnel à faibles économies d'échelle	
Transport fibre	Nature de bien public des routes et des pistes		Prise en charge du financement de l'entretien et de la maintenance des pistes rurales par la filière cotonnière	
Achat export de coton fibre	Nature de bien public de la réputation internationale du coton du pays		Adoption d'un système unique de classement à l'échelle nationale	
Transport Graine de coton	Nature de bien public des routes et des pistes		Prise en charge du financement de l'entretien et de la maintenance des pistes rurales par la filière cotonnière	
Recherche	Nature de bien commun des connaissances techniques utilisées pour la culture		Prise en charge du financement conséquent de la recherche par la filière cotonnière	

Annexe 7 : Les actions identifiées pour avoir empêcher l'occurrence des défaillances de coordination

Etape technique	Défaillance	action d'état	action collective	Réaction du marché
Conseil technique	Nature de bien commun des connaissances techniques utilisées pour la culture		Prise en charge du financement conséquent de la vulgarisation par la filière cotonnière	
Production de CG	Imperfection du marché des produits vivriers			fonctionnement de longue date des marchés ruraux dans les villages
	Imperfection du marché du travail		pratique traditionnelle de l'entr'aide et réduction de la demande en travail par la diffusion de la culture attelée	
	Incomplétude des marchés financiers		Possibilité de décapitalisation du bétail en cas de nécessité	
	Nature de bien commun des connaissances techniques utilisées pour la culture		Prise en charge du financement conséquent de la vulgarisation par la filière cotonnière	
Achat local de CG	Entente entre les acheteurs de coton graine	Régulation par l'octroi du monopole aux acheteurs de coton graine		
Egrenage	Incomplétude du marché de l'assurance		Accès au marché international découlant du partenariat dans les sociétés cotonnières	Caractère attractif d'un marché important représenté par l'ensemble des filières cotonnières francophones
Distribution d'intrants	Incomplétude du marché de l'information (sur les quantités produites et disponibles)		système de recensement des besoins en intrants impliquant les organisation paysannes	
	Insuffisance de concurrence dans la distribution des intrants aux paysans	Régulation de la distribution dans le sens d'un monopole ou d'une privatisation administrée		
Distribution d'intrants	Risque moral des emprunteurs de crédit		Application de la caution solidaire au sein des organisations paysannes chargées de la gestion du crédit intrant	

Annexe 7 Les actions identifiées pour avoir empêcher l'occurrence des défaillances de coordination

Etape technique	Défaillance	action d'état	action collective	Réaction du marché
Production de CG	Nature de bien commun de la réserve en terre arable du village		Règles traditionnelles de gestion des terres dans les villages	
Transport CG	Nature de bien public des routes et des pistes		Prise en charge du financement de l'entretien et de la maintenance des pistes rurales par la filière cotonnière	
Fournis. internat. d'intrants	Difficulté à évaluer les caractéristiques des engrais et pesticides		Intgration des procédures de contrôle de qualité dans les appels d'offres internationales	d'un marché important qu'on souhaite fournir dans la durée en respectant les exigences qualitatives
Fabricant local d'intrants	Difficulté à évaluer les caractéristiques des engrais et pesticides		Intgration des procédures de contrôle de qualité dans les appels d'offres internationales	d'un marché important qu'on souhaite fournir dans la durée en respectant les exigences qualitatives
Distribution d'intrants	Difficulté à évaluer les caractéristiques des engrais et pesticides		Intgration des procédures de contrôle de qualité dans les appels d'offres internationales	d'un marché important qu'on souhaite fournir dans la durée en respectant les exigences qualitatives
	Incomplétude des marchés financiers		intrants aux organisations paysannes	
	Incomplétude du marché de l'information sur les quantités réellement demandées par les paysans et les périodes de commande		système de recensement des besoins en intrants impliquant les organisation paysannes	
Recherche	Nature de bien commun des connaissances techniques utilisées pour la culture		Prise en charge du financement conséquent de la recherche par la filière cotonnière	
Production de CG	Absence de marché de terres cultivables		Règles traditionnelles de gestion des terres dans les villages	
	Nature de mal commun de la pression parasitaire		accès de tous les paysans à la maîtrise technique de la protection phytosanitaire et aux insecticides nécessaires	

Annexe 7 Les actions identifiées pour avoir empêcher l'occurrence des défaillances de coordination

Etape technique	Défaillance	action d'état	action collective	Réaction du marché
Distribution d'intrants	**Difficulté à évaluer les caractéristiques des engrais et pesticides**		**Intgration des procédures de contrôle de qualité dans les appels d'offres internationales**	**d'un marché important qu'on souhaite fournir dans la durée en respectant les exigences qualitatives**
Conseil technique	**Nature de bien commun des connaissances techniques utilisées pour la culture**		**Prise en charge du financement conséquent de la vulgarisation par la filière cotonnière**	
Recherche	**Difficulté à évaluer certaines caractéristiques du coton graine déterminantes des caractéristiques du coton fibre (collage par exemple)**		**Adaptation des programmes de protection phytosanitaire pour éviter la dépréciation de la qualité**	
	Nature de bien commun des connaissances techniques utilisées pour la culture		**Prise en charge du financement conséquent de la vulgarisation par la filière cotonnière**	
Conseil technique	**Difficulté à évaluer certaines caractéristiques du coton graine déterminantes des caractéristiques du coton fibre (collage par exemple)**		**Adaptation des programmes de protection phytosanitaire pour éviter la dépréciation de la qualité**	
	Nature de bien commun des connaissances techniques utilisées pour la culture		**Prise en charge du financement conséquent de la vulgarisation par la filière cotonnière**	
Production de CG	**Difficulté à évaluer certaines caractéristiques du coton graine déterminantes des caractéristiques du coton fibre (collage par exemple)**		**Adaptation des programmes de protection phytosanitaire pour éviter la dépréciation de la qualité**	
	Nature de bien commun des connaissances techniques utilisées pour la culture		**Prise en charge du financement conséquent de la vulgarisation par la filière cotonnière**	

Annexe 7 Les actions identifiées pour avoir empêcher l'occurrence des défaillances de coordination

Etape technique	Défaillance	action d'état	action collective	Réaction du marché
Achat local de CG	Difficulté à évaluer certaines caractéristiques du coton graine déterminantes des caractéristiques du coton fibre (collage par exemple)		Adaptation des programmes de protection phytosanitaire pour éviter la dépréciation de la qualité	
Egrenage	Difficulté à évaluer certaines caractéristiques du coton graine déterminantes des caractéristiques du coton fibre (collage par exemple)		Adaptation de l'égrenage pour préserver la qualité et adaptation des programmes de protection phytosanitaire	
Classification	Difficulté à évaluer certaines caractéristiques prises en compte par les utilisateurs finaux (collage, SCF)		Adaptation de l'égrenage pour préserver la qualité et adaptation des programmes de protection phytosanitaire	
	Existence d'économie d'échelle dans le classement		Option d'un mode de classement conventionnel à faibles économies d'échelle	
	Risque moral sur la qualité vendue de la fibre ou des graines		Adoption maîtrisée de la classification du coton fibre. Politique collective de fidélisation des clients	
Achat local coton fibre	Risque moral sur la qualité vendue de la fibre ou des graines		Politique de fidélisation des clients en respectant les engagements de qualité	
Achat export de coton fibre	Risque moral sur la qualité vendue de la fibre ou des graines		Politique de fidélisation des clients en respectant les engagements de qualité	
Achat local de graines	Risque moral sur la qualité vendue de la fibre ou des graines		Situation f'réquente d'intégration ou de quasi intégration qui affranchit de tout risque moral	
Achat export de graines	Risque moral sur la qualité vendue de la fibre ou des graines		Pas d'exportation à grande échelle des graines	
Achat local de CG	Bien collectif des points de ramassage		Définition de critères explicites dans la création des points de ramassage	

Annexe 7 Les actions identifiées pour avoir empêcher l'occurrence des défaillances de coordination

Etape technique	Défaillance	action d'état	action collective	Réaction du marché
	Incomplétude des marchés financiers			Caractère attractif d'un grand marché pour inciter l'entrée d'institutions financières offshore
	Incomplétude du marché de l'information (sur les quantités produites et disponibles)		système d'estimation des productions impliquant les organisation paysannes	
Transport CG	Nature de bien public des routes et des pistes		Prise en charge du financement de l'entretien et de la maintenance des pistes rurales par la filière cotonnière	
	Oligopole des sociétés de transport		Pouvoir de négociation des sociétés cotonnières disposant d'un parc autonome de camions de taille suffisante	
	Saisonnalité de la demande pour le transport de marchandises			Caractère captif du marché de transports des filières cotonnières pour les transporteurs nationaux
Classification	Difficulté à évaluer certaines caractéristiques prises en compte par les utilisateurs finaux (collage, SCF)		Adaptation des programmes de protection phytosanitaire et bon réglage de l'égrenage pour éviter les problèmes de collage et de SCF	
	Existence d'économie d'échelle dans le classement		Option d'un mode de classement conventionnel à faibles économies d'échelle	
Achat export de coton fibre	Nature de bien public de la réputation internationale du coton du pays		Adoption d'un système unique de classement à l'échelle nationale	
Achat local coton fibre	Nature de bien public de la réputation internationale du coton du pays		Adoption d'un système unique de classement à l'échelle nationale	
Achat export de coton fibre	Nature de bien public de la réputation internationale du coton du pays		Adoption d'un système unique de classement à l'échelle nationale	

Annexe 7 : Les actions identifiées pour avoir empêcher l'occurrence des défaillances de coordination

Etape technique	Défaillance	action d'état	action collective	Réaction du marché
Achat local de graines	**Oligopole des négociants de coton fibre ou graines de coton**		**Situation f'réquente d'intégration ou de quasi intégration qui affranchit de tout risque moral**	

Annexe 8 :Les défaillances sont-elles avérées ? (par type et en fonction de l'orientation des modes d'organisation, pour toutes les étapes techniques)

			Pays à Orientation monopole	Pays à Orientation libéralisation
Objectif partiel de développement	**Etape technique**	**Défaillance**	**de type "Etat"**	**de type "Etat"**
Accroître le revenu coton des producteurs	Fournis. internat. d'intrants	Absence de politique de concurrence efficace	Oui	Oui
		Recherche de rente dans l'allocation de licences pour l'importation de semences	Oui	Oui
	Transport d'intrants	Inefficacité productive dans l'utilisation des camions (surinvestissement, non entretien, détournement)	***Oui***	Oui
	Recherche	Recherche de rente dans l'enregistrement des variétés	***Oui***	Oui
	Achat local de CG	Recherche de rente dans la fourniture de licences aux égreneurs	***Oui***	Oui
	Egrenage	Inefficacité productive dans le stockage du coton graine	***Oui***	Non
	Achat local coton fibre	Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	Oui	Oui
	Transport fibre	Inefficacité productive dans l'utilisation des camions (surinvestissement, non entretien, détournement)	***Oui***	Oui
	Stockage (au port)	Manque de ressources pour investir dans de nouveaux entrepôts	Oui	Oui
	Achat export de coton fibre	Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	Oui	Oui
	Achat local de graines	Taxation excessive sur la filière	Oui	Oui
	Achat export de graines	Taxation excessive sur la filière	***Oui***	Oui
Améliorer la fourniture de services publics	Production de CG	Manque de ressources pour organiser la commercialisation des produits vivriers	Oui	Oui
Améliorer l'équité en termes de distrobution de revenu coton entre les producteurs		Manque de ressources pour fournir le crédit consommation	Oui	Oui
Garantir la durabilité par la prévention des effets néfastes de l'utilisation des produits chimiques		Manque de ressources pour le fonctionnement de la filière	***Oui***	Oui
Garantir une gestion durable des espaces cultivés	Transport d'intrants	Mauvais entretien des routes et des pistes par manque de ressources ou par inefficacité	Oui	Oui
	Conseil technique	Inefficacité de la coordination de la connaissance vulgarisée fournie par différentes agences	Oui	Non
	Transport fibre	Mauvais entretien des routes et des pistes par manque de ressources ou par inefficacité	Oui	Non
	Transport Graine de coton	Mauvais entretien des routes et des pistes par manque de ressources ou par inefficacité	Oui	Non
Renforcer la compétitivité en réduisant les coûts de production et de commercialisation de la fibre jusqu'à la vente sur le marché local ou exportatio	Classification	Recherche de rente dans l'enregistrement des variétés	***Oui***	Oui
	Achat local de CG	Inefficacité productive dans le stockage du coton graine	***Oui***	Non

Annexe 8 :Les défaillances sont-elles avérées ? (par type et en fonction de l'orientation des modes d'organisation, pour toutes les étapes techniques)

			Pays à Orientation monopole	**Pays à Orientation libéralisation**
Objectif partiel de développement	**Etape technique**	**Défaillance**	**de type "Etat"**	**de type "Etat"**
	Egrenage	Inefficacité productive dans le stockage du coton fibre (surinvestissement, non entretien, détournement)	***Oui***	Non
		Inefficacité productive dans le stockage du coton graine	***Oui***	Non
Renforcer la compétitivité en s'adaptant aux exigences qualitatives des utilisateurs	Classification	Inefficacité productive dans la classification du coton fibre	Oui	Oui
	Achat local de graines	Taxation excessive sur la filière	Oui	Oui
	Achat export de graines	Taxation excessive sur la filière	Oui	Oui
Renforcer la compétitivité par l'obtention de meilleurs prix à la vente locale ou à l'exportation du coton fibre	Achat local coton fibre	Inefficacité dans l'adaptation du timing des ventes aux périodes où prix le plus élevé à l'export	Oui	Oui
	Achat export de coton fibre	Inefficacité dans l'adaptation du timing des ventes aux périodes où prix le plus élevé à l'export	Oui	Oui
		Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	Oui	Oui
		Recherche de rente dans les services de transit	Oui	Oui
Renforcer la compétitivité par l'obtention de meilleurs prix à la vente ou à l'exportation des graines de coton	Achat local de graines	Inefficacité productive dans la recherche de clients acheteurs de coton fibre ou de graines de coton	Oui	Oui

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Nombre d'usines d'égrenage par zone
Number of ginneries by area

CAMPAIGN	Pays (country)	Zone (area)	Nombre d'usines (No. ginneries)
1998	COTE D'IVOIRE	Global	10
	MALI	Global	17
1999	BENIN	DRE Zone Nord	2
		GLOBAL	10
	BURKINA FASO	Global	12
	COTE D'IVOIRE	Centre	4
		Nord-est	3
		Nord-ouest	3
	GHANA	Global	4
		Northern Region	2
		Upper West Region	2
	MALI	Global	17
2000	BURKINA FASO	Global	12
	CAMEROUN	Global	9
	COTE D'IVOIRE	Centre	4
		Nord-est	3
		Nord-ouest	3
	GHANA	Global	4
		Northern Region	2
		Upper West Region	1
	MALI	Global	17
2001	BURKINA FASO	Global	12
	CAMEROUN	Global	9
	COTE D'IVOIRE	Centre	4
		Nord-est	4
		Nord-ouest	3
	GHANA	Global	4
		Northern Region	2
		Upper West Region	1
2002	CAMEROUN	Global	9

ERRI_3020 **Taux d'utilisation des capacités d'égrenage, par zone**

Ginning capacity use, by area

CAMPAIGN	Pays (country)	Zone (area)	Capacité totale, tonnes de SG (Total capacitie, tons of SC)	% utilisation (% use)
1998	COTE D'IVOIRE	Global	320 000	105,2%
	MALI		550 000	94,3%
1999	BENIN	DRE Zone Nord	50 000	102,8%
		GLOBAL	312 500	60,0%
	BURKINA FASO	Global	400 000	71,1%
	COTE D'IVOIRE	Centre	115 000	104,2%
		Nord-est	130 000	90,0%
		Nord-ouest	125 000	95,8%
	GHANA	Global	45 000	49,7%
		Northern Region	24 000	18,6%
		Upper West Region	12 000	19,7%
	MALI	Global	550 000	83,5%
2000	BURKINA FASO	Global	400 000	63,6%
	CAMEROUN	Global	270 000	71,1%
	COTE D'IVOIRE	Centre	115 000	94,1%
		Nord-est	130 000	88,5%
		Nord-ouest	125 000	104,0%
	GHANA	Global	45 000	20,6%
		Northern Region	18 700	34,1%
		Upper West Region	12 000	19,7%
	MALI	Global	550 000	44,1%
2001	BURKINA FASO	Global	400 000	69,0%
	CAMEROUN	Global	270 000	85,3%
	COTE D'IVOIRE	Centre	115 000	59,1%
		Nord-est	230 000	39,1%
		Nord-ouest	125 000	74,3%
	GHANA	Global	45 000	20,6%
		Northern Region	12 072	35,5%
		Upper West Region	12 000	17,6%
2002	CAMEROUN	Global	270 000	

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Evolution de la surface cotonnière, par zone
Evolution of the cotton acreage, by area

Type producteur (Producer type): Small holder

Producteur familial

Pays (Country)	Zone (area)	Classe producteur (Producer sub-type)	Campaign	Surface coton, ha (Cotton acreage, ha)
BENIN	ATACORA DONGA	Global	1999	51 143
		Global	2000	58 396
	BORGOU -ALIBORI		1999	166 522
			2000	164 778
	DRE Zone Centre			107 715
BURKINA FASO	Global		1999	354 436
			2000	245 000
			2001	260 000
CAMEROUN	Extrême-nord		2000	80 079
			2001	90 952
			2002	83 396
	Global		2000	179 575
			2001	198 559
			2002	201 576
	Nord		2000	99 496
			2001	107 607
			2002	118 180
COTE D'IVOIRE	Centre		2000	65 488
			2001	65 488
	Global		1998	244 313
			1999	271 371
			2000	291 457
	Nord-est		1999	
			2000	
			2001	94 102
	Nord-ouest		1999	95 199
			2001	88 888
GHANA	Northern Region		1999	8 590
			2000	9 374
			2001	4 867

GHANA	Upper East Region	Global Global	1999	8 767
			2000	6 933
			2001	4 507
	Upper West Region		1999	16 228
			2000	11 809
			2001	6 936
MALI	CMDT		1998	468 582
			1999	442 496
			2000	211 724
			2001	480 497
		Sub-type 1 Sous-type 1	1998	196 804
			1999	168 149
			2000	82 572
			2001	192 199
		Sub-type 2 Sous-type 2	1998	210 862
			1999	230 098
			2000	105 862
			2001	240 249
		Sub-type 3 Sous-type 3	1998	37 487
			1999	26 550
			2000	14 821
			2001	28 830
		Sub-type 4 Sous-type 4	1998	23 429
			1999	17 700
			2000	8 469
			2001	19 220
	Global	Global Global	1998	504 427
			1999	482 299
			2000	227 908
			2001	
	OHVN		1998	
			1999	39 800

Evolution de la surface cotonnière, par zone
Evolution of the cotton acreage, by area

MALI	OHVN	Global Global	2000	16 081
			2001	41 841

Moyenne SEED_COTTON_PRODUCTION			PRODUCER_TYF Sub_producer_FR				
			Producteur familial				
CAMPAIGN_	COUNTRY_NAME	AREA_NAME	Global	Sous-type 1	Sous-type 2	Sous-type 3	Sous-type 4
1998	COTE D'IVOIRE	Global	337 097				
	MALI	CMDT	483 680	218 649	230 261	34 113	24 530
		Global	518 364				
		OHVN					
1999	BENIN	ATACORA DONGA	59 619				
		BORGOU -ALIBORI	174 000				
	BURKINA FASO	Global	284 400				
	COTE D'IVOIRE	Global	360 800				
		Nord-est					
		Nord-ouest	119 827				
	GHANA	Northern Region	1 251				
		Upper East Region	5 595				
		Upper West Region	4 948				
	MALI	CMDT	429 989	188 495	233 089	25 594	17 842
		Global	459 123				
		OHVN	39 410				
2000	BENIN	ATACORA DONGA	69 769				
		BORGOU -ALIBORI	189 000				
		DRE Zone Centre	76 814				
	BURKINA FASO	Global	254 000				
	CAMEROUN	Extrême-nord	69 100				
		Global	197 217				
		Nord	122 000				
	COTE D'IVOIRE	Centre	67 945				
		Global	400 000				
		Nord-est	119 000				
	GHANA	Northern Region	1 654				
		Upper East Region	5 125				
		Upper West Region	3 847				
	MALI	CMDT	229 641	95 206	101 733	13 680	7 233
		Global	242 726				
		OHVN	13 651				
2001	BURKINA FASO	Global	275 000				
	CAMEROUN	Extrême-nord	76 600				
		Global	230 932				
		Nord	130 300				
	COTE D'IVOIRE	Centre	67 945				
		Nord-est	120 000				
		Nord-ouest	92 837				
	GHANA	Northern Region	377				
		Upper East Region	2 125				
		Upper West Region	1 883				
	MALI	CMDT	535 341	217 377	267 157	26 985	18 720
		Global	570 874				
		OHVN	38 533				
2002	CAMEROUN	Extrême-nord	19 000				
		Global	236 200				
		Nord	217 200				

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Nombre de producteurs et de villages coton

Number of cotton producers and villages

Type producteur (Producer type): Small holder

Producteur familial

Campaig	Pays (Country	Zone (area)	Classe de producteur (Producer sub-type)	Nb. prod. coton (No. cotton farmers)	Nb.villages coton (No.cotton vill.)	Nb. total villages (Total No. of villages)	% villages avec coton (% villagesw/cotton)
1998	COTE D'IVOIRE	Global	Global Global	153 241	3 965	3 965	100%
	MALI	CMDT	Global Global	157 877	4 651	3 795	123%
		CMDT	Sous-type 1 Sub-type 1	36 312		3 795	
		CMDT	Sous-type 2 Sub-type 2	75 781		3 795	
		CMDT	Sous-type 3 Sub-type 3	22 103		3 795	
		CMDT	Sous-type 4 Sub-type 4	25 260		3 795	
1999	BENIN	ATACORA DONG	Global Global	35 297	329		
		BORGOU -ALIBO	Global Global	85 500	500		
	BURKINA FASO	Global	Global Global	200 000	4 200	4 200	100%
	COTE D'IVOIRE	Global	Global Global	162 113	3 518	3 775	93%
		Nord-est	Global Global			1 285	
		Nord-ouest	Global Global	51 057	634	634	100%
	GHANA	Northern Region	Global Global	16 800	264	7 222	4%
		Upper East Regio	Global Global	12 346	218	4 750	5%
		Upper West Regio	Global Global	28 797	557	5 000	11%
	MALI	CMDT	Global Global	154 860	4 767	3 802	125%
		CMDT	Sous-type 1 Sub-type 1	30 972		3 802	
		CMDT	Sous-type 2 Sub-type 2	86 722		3 802	
		CMDT	Sous-type 3 Sub-type 3	17 035		3 802	
		CMDT	Sous-type 4 Sub-type 4	20 132		3 802	
		OHVN	Global Global	25 601	684	723	95%
2000	BURKINA FASO	Global	Global Global	200 000	4 200	4 200	100%
	CAMEROUN	Extrême-nord	Global Global	165 361	3 208	3 208	100%
		Global	Global Global	321 994			
		Nord	Global Global	156 633			
	COTE D'IVOIRE	Centre	Global Global			1 671	
		Global	Global Global	161 265	3 679	3 679	100%
		Nord-est	Global Global			1 358	
	GHANA	Northern Region	Global Global	18 117	188	7 222	3%
		Upper East Regio	Global Global	10 400	127	4 750	3%
		Upper West Regio	Global Global	23 190	325	5 000	7%

Nombre de producteurs et de villages coton

Number of cotton producers and villages

Type producteur (Producer type): Small holder — Producteur familial

Campaig	Pays (Country	Zone (area)	Classe de producteur (Producer sub-type)	Nb. prod. coton (No. cotton farmers)	Nb.villages coton (No.cotton vill.)	Nb. total villages (Total No. of villages)	% villages avec coton (% villagesw/cotton)
2000	MALI	CMDT	Global Global	88 432	3 819	3 801	100%
		CMDT	Sous-type 1 Sub-type 1	18 571		3 801	
		CMDT	Sous-type 2 Sub-type 2	45 985		3 801	
		CMDT	Sous-type 3 Sub-type 3	11 496		3 801	
		CMDT	Sous-type 4 Sub-type 4	12 380		3 801	
		OHVN	Global Global	25 601	684	723	95%
2001	BURKINA FASO	Global	Global Global	200 150	4 630	4 630	100%
	CAMEROUN	Extrême-nord	Global Global	187 032	3 208	3 208	100%
		Global	Global Global	357 736			
		Nord	Global Global	170 704			
	COTE D'IVOIRE	Centre	Global Global	43 865	1 415	1 415	100%
		Nord-est	Global Global	38 954	1 358	1 421	96%
		Nord-ouest	Global Global	43 156	833	633	132%
	GHANA	Northern Region	Global Global	14 017	151	7 222	2%
		Upper East Regio	Global Global	625	129	4 750	3%
		Upper West Regio	Global Global	7 768	330	5 000	7%
	MALI	CMDT	Global Global	162 408	5 231	6 242	84%
		CMDT	Sous-type 1 Sub-type 1	37 354		6 242	
		CMDT	Sous-type 2 Sub-type 2	87 700		6 242	
		CMDT	Sous-type 3 Sub-type 3	16 241		6 242	
		CMDT	Sous-type 4 Sub-type 4	21 113		6 242	
		OHVN	Global Global		684	723	95%
2002	CAMEROUN	Extrême-nord	Global Global	178 932	3 208	3 208	100%
		Global	Global Global	367 473			
		Nord	Global Global	188 541			